

# THE MEDICAL AND SURGICAL REPORTER.

No. 1300.]

PHILADELPHIA, JANUARY 28, 1882.

[Vol. XLVI.—No. 4.]

## ORIGINAL DEPARTMENT.

### COMMUNICATIONS.

#### CLINICAL CASES OF SURGICAL DISEASES OF WOMEN.

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##### Restoration of the Perineum.

CASE 1.—Mrs. —, aged twenty-six years. Three years before I saw her, this lady was delivered of a hydrocephalic child—a still birth. The feet presented, and forceps were applied to the head, effecting its delivery, with the result of producing a complete laceration of the perineal body, and of the septum through the sphincters. From date of the injury this lady experienced the usual sequent miseries of this injury. She had no voluntary control over the sphincter function of the bowel, and had prolapse of the bladder. She was confined to the house, and generally to the bed. During this time she lost weight and color, and began to cough, and had chills and night sweats. Her mother having died at an early age with consumption, this disease was reasonably feared by the patient and her friends, in her own case. I was called to see her on account of her lung disease, and found a condition of her right lung which, I believed, indicated fibrous phthisis. She told me nothing about her injury until the fact was developed by inquiries relating to the uterine organs. On examination, I found the condition as stated. I advised the patient to have the perineum restored by operation, and afterward to take a trip to Colorado, for her lungs, to which she and her friends assented. In the surgical treatment of this case I followed

the method practiced and advised by Dr. T. H. Emmett in his truly great work on gynecology. As a preparation, locally, for the operation, vaginal injections of hot water were used daily for about two weeks, and sesquioxide of iron was given internally.

On the fourth day before the operation a laxative was given, which was repeated daily, the last dose being given the evening before. The intestines were as empty as they could be made, which plan is most decidedly a great improvement over the old one of giving a cathartic only the day before the operation. At six o'clock in the morning two grains of opium were given, and at nine o'clock the operation was performed.

The patient took ether very kindly, and when under its influence I removed the cicatricial tissue and as much of the vaginal mucous membrane as was deemed necessary. The rent in the septum was so great that the apex of the denudation in the mucous membrane was well up in the *cul de sac* behind the cervix. During this part of the operation the bleeding was excessive, several vessels being cut, and the capillary bleeding being greater than was expected after the prolonged use of hot water. I have since learned enough to know that the sesquioxide of iron contributed to this result, as it inhibits the vasomotor contractors, and I have lately used it in angina with better success than is given by nitrite of amyl. To control the bleeding, hot water was used by one of the assistants, at first with a sponge, and then with a syringe. The two physicians who assisted in the operation and I, soon learned to keep a stream of hot water following the cut of the scissors; but for this the operation would have been almost impossible. The

surface denuded was unusually large, and eight silver sutures were used. The first suture was placed in that relation to the sphincter which insures its union, and which was demonstrated by Dr. Emmett, and is difficult to explain without the aid of the diagram given in his book.

The last suture was inserted through the vulva and passed through the mucous membrane above the denuded surface, which drew the membrane over the vaginal portion of the surfaces, where union was hoped for. The placing of the lower and upper sutures in this manner, with the object of placing the torn edges of the sphincter in apposition in one case, and of protecting the uniting surface from the septic influence of vaginal biological ashes in the other, are certainly strokes of a gynecological genius.

On the sixth day after operation the two middle sutures were removed; the remainder were removed on the twelfth day, and the union was perfect. Injections were given, to render the contents of bowels soluble, and they were moved without injury. During the twelve days, one-half a grain of opium was given daily, which was sufficient to prevent any action of the bowels, and vaginal douches, carbolyzed, were also used daily, and the urine drawn twice a day, great care being used to avoid getting any urine into the wound.

The general health of the patient began to mend as soon as she was out of bed. She gained flesh, got a good color, and went to Colorado for six months. The lung disease was subdued, so far as any active manifestation goes. It is now three years since the operation was made; the lady during this time has again become a mother, with very little injury to the perineum, and her health is good.

CASE. 2.—Mrs. —, was aged twenty two years when she was delivered of her first child. Her *accoucheur* was a member of the hybrid, homœopathic, "new school" of medicine. The perineal body, as a result of this labor, was torn through, as well as the external sphincter muscle. The sequences of the injury were: A limited control over the sphincter function, and prolapse of the uterus, the cervix of which was somewhat lacerated. The patient attributed her misfortune entirely to the fact that her physician during the bearing down pains kept straining the perineum backward with his fingers. On questioning her, I learned that she was delivered while lying on her left side, with thighs flexed, which position, combined with the efforts of her physician, were certainly proper antecedents to such a calamity.

I wish here to contribute a mite toward the literature of management of the perineum during labor. It is obvious that the perineum serves a purpose in the mechanism of labor, and other things being equal, does not require the support so much talked about in the text books. The benefit of such support—pressure with the hand—having the effect to aid the perineum in giving the head a forward direction, describing a curve around the pubis. It is apparent that if this direction of the head is maintained there is so much less danger to the perineum. The course of the head through the pelvis, in the direction of the curve of Carus, is in great part due to the anatomical conformity of the pelvis; but the office of the perineum is to continue the course of the head in the circle of which the curve of Carus is a segment, and the opposing force to this perineal force is the pubis. It is, then, a deduction from these facts, that support of the perineum means aiding the perineum to continue the course of the head in the direction of a circle which is continuous with the curve of the pelvis. It is a further deduction, that straining the perineum in the opposite direction directly interferes with the mechanism of labor, and as directly endangers the perineum. Another factor in the support of the perineum is the position of the parturient woman. It may easily be demonstrated that the woman, when the head is describing the curve around the pubis, should lie with her thighs extended. If the finger of the *accoucheur* be inserted between the head of the child and the perineum, and the woman's thighs are flexed, the tension of the perineum is felt to be greater than when the thighs are extended, other things being equal. If this demonstration proves anything, it is, that flexure of the thighs upon the abdomen increases the curve of Carus very notably in that portion of its course bounded by the perineum, and that flexion of the thighs during delivery of the head and shoulders directly increases the danger to the perineum. I have never attended a parturient woman who suffered rupture of the perineal body to any notable extent, which fact I attribute to the reason that I discovered the facts as given, relating to flexion of the thighs and tension of the perineum, in the third case of labor which I attended, sixteen years ago—a primipara, thirty-eight years of age, during whose labor the head remained two hours in a position which partially distended the perineum. This discovery, I suppose, has been made by many physicians, but I never happened to see the record of it.

In this case the operation for restoration of the

perineum was made by the older method. Instead of cutting away the cicatricial tissue and the mucous membrane, the epithelial tissue only was removed and the silk quill suture used. The union was not as complete as in Case 1. To all appearance, as manifest to touch, the perineal body was intact; but a communication existed between the vagina and external perineum, along which water could find its way when injected into the vagina. The patient, however, was cured, by the operation, of the prolapsus and the inconvenience relating to the bowel.

#### Restoration of Cervix.

CASE 3.—Mrs. —, when I saw her, in February, 1880, was forty-two years old and the mother of five children, the youngest seven years of age. This lady is a native of England, and her physician in London was the famous Dr. Richardson. I was called to see this patient on account of an attack of menorrhagia. I made no examination, as the proposition to do so was thought by her to be unnecessary, as she stated these attacks had been repeating themselves at intervals during the last two years, and she thought they were due to approaching change of life. I prescribed large hot water vaginal injections and a preparation of ergot and digitalis, to be taken in a decoction of cinnamon.

In two weeks I saw patient again, and was obliged to use the tampon. I discovered, by digital examination at this time, that she had a complete laceration of cervix. I found it necessary to tampon vagina several days, and learned by repeated examinations that the cervix was split entirely, and its lateral halves were, so far as could be determined by touch, continuous with the vaginal walls. I confess that I was nonplussed by the case as felt at first, for, sliding my finger up the vaginal wall, I would find no evidence of a cervix, or Douglas *cul de sac*, but my finger would pass up into the cavity of the uterus, which fitted it like a cup thimble. I had never seen a laceration so extensive, and was unprepared to know the meaning of the tactile sensation. I became satisfied, however, what the condition of things must be, and in a few days, the bleeding having ceased, I made an examination with Sim's speculum, and found that I could see the fundus uteri, as well as feel it, there being no external or internal os. With two hooks I brought the halves of the cervix from, apparently, out of the vaginal walls, and drawing them together the form of the uterus could be seen. The perineal body was also lacerated, and the fundus of the uterus—the inside of it—was about two inches above the vulva.

I explained the nature of things to the patient, who remarked that Dr. Richardson said she was ruptured, and had proposed an operation to relieve her before she left London. The cervical mucous membrane was congested, and pricking it let out an abundance of gelatinous substance.

I told the patient that her life depended on the restoration of the cervix, and two months were occupied in the preparatory treatment and unavoidable delays. The treatment consisted in administration of ergot, digitalis, and dialysed iron; a daily vaginal douche of a gallon of hot water, and application every third day of compound tinct. of iodine to the cervical membrane and uterine cavity. There were frequent and severe hemorrhages during this period of preparation, and for twenty days, in the aggregate, I was obliged to use the tampon. A notable feature of this treatment was the hot water injections, which were performed with the ordinary Davidson's syringe, using one gallon of water at once, and which was, of course, injected directly into the uterine cavity, without a symptom of the usual uterine colic which follows sometimes the advent of a small quantity of water into the uterus. There was apparently no more sensation, in character or degree, in this patient's uterus than was afforded by the vaginal walls. The patient could distinguish her menstrual hemorrhage from other paroxysms of bleeding by the backache and other sympathetic pains, and the operation was appointed on the fifth day after accession of menses, providing the flow could be stopped. At next menstruation she was tamponed, as usual, and seven days passed before she was ready. At this time a physician sent her word that he could cure her without an operation, and in consequence the operation was delayed until ten days before the time for her next menstrual period. The operation was made as Emmett directs: the cicatricial and mucous membrane being removed, leaving a space for the cervical canal, the two halves were brought together, and eight silver sutures were used. On the fourth day after the operation she began to flow, which I supposed would destroy the hoped-for result of the operation. The flow continued about six days. I left the sutures in place fourteen days, hoping union might occur, when the patient had an attack of winter cholera, which came on at night, was very severe, and when I reached her she was collapsed, almost pulseless, and was, to all appearances, a hopeless case. Her family and friends were around her in the attitude of mourners, and I never saw so pale and exsanguined a surface

as she presented. I gave her, hypodermically, morphia sulph. gr.  $\frac{1}{2}$  and atropia sulph. gr.  $\frac{1}{16}$ , the remedy which I relied on for winter cholera. She began within an hour to rally, and recovered from the attack. She was plied with beef extract and brandy until the eighteenth day from date of operation, when I removed the sutures, fully expecting to see the parts separate, but to my great surprise the union was perfect. At her next menstruation the patient declared she was "more natural than she had been at any time since she was twenty years old." She has been healthy ever since and has gained thirty pounds in weight. The uterus occupies the normal position in the pelvis, notwithstanding the perineal body is gone.

CASE 4.—Mrs. —, was married at the age of thirty-eight years. She was small in stature, light in weight, had always been a subject of neurasthenia, with neuralgic manifestations, but never had any of the zymotic diseases, or acute sickness, and yet says she never had a well day.

Within a year after her marriage this lady was delivered of a ten pound boy, by aid of forceps, and the cervix was completely lacerated. In this case the split was not midway in the cervix, but the anterior portion was about half the thickness of the posterior. The two sides rolled out, after the manner of a celery root when split in the axis of its length. The laceration extended upward on the external surface of the cervix to its junction with the vaginal walls, and internally extended through the internal os. The sequences of this injury were entirely referred to the nervous system, and the only discomfort was neuralgia, which appeared to extend throughout the whole sensory nervous system connected with the pelvis. The pain was nearly constant, and confined her to bed. Sleep could only be procured after great exhaustion from wakefulness and suffering, or by chloral. At the end of the second month the cervix was restored by the same method as in the previous case, but without an untoward symptom. The sutures were removed on the tenth day and the union was found perfect. The restoration of the cervix cured the pelvic neuralgia, and her general health is much better than before her marriage.

CASE 5.—Mrs. — was twenty-eight years old when she was delivered of her first child, by forceps, with the lamentable sequence of unilateral laceration of the cervix and complete rupture of the perineum. Her physician told her that the accident was due to the fact that the child had no soft spot in its head. I suppose he referred to the condition of the fontanelles. He,

however, immediately inserted silver sutures, and to all appearance the perineum was united, and the medical gentleman assured the patient that the like was never known before. I saw the case three months afterward. The patient was emaciated, had loss of appetite, indigestion, and the urine loaded with phosphates. She referred her local distress to the bladder, stating she not only had difficult micturition, but could not sit, except on one of the nates, or rather one hip, frequently changing from one side to the other, on account of painful sensations produced in the bladder.

On examination, I found that the perineal body was not united, but there was a union of the integument of the perineum, which bridged across the chasm, and somewhat resembled the web of a goose's foot. The uterus emitted a discharge of acrid, purulent matter, and was prolapsed, resting between the severed halves of the perineal body. To relieve the sensation of bladder distress I cut the bridge away with scissors, which allowed the patient to sit upright, by removing the tension from the integumentary perineum, and proceeded to prepare her for restoration of cervix and perineal body. These operations were completed in due time, without misfortune or hindrance, and the patient recovered her health. She has since given birth to her second child, during the labor for which the perineum remained intact.

CASE 6.—Mrs. —, when I saw her, was aged nineteen years; had been married three years; and a year since gave birth to a child. Since then her health had materially deteriorated. She was subject to hystero-epilepsy, and was at times quite maniacal. There was a bellows murmur, heard loudest over the apex of the heart. She never had rheumatism. She complained of an acrid vaginal discharge, which caused great irritation, and had been treated for ulceration of the cervix, without benefit. I detected a unilateral laceration of the cervix by digital examination, there being so much vaginal inflammation that I could not use a speculum. She was directed to use hot water vaginal douches, and returning in two weeks, a speculum examination was made, which verified the existence of the laceration. The lacerated surfaces were secreting pus of an acrid character, which kept the vaginal mucous membrane in a condition of inflammation. Topical applications of the comp. tinct. of iodine were made daily to the wound, and punctures with a sharp lancet as often, to let out the gelatinous matter. The parts appearing ready for the operation, the day was



appointed, but while getting ready, owing to excitement, the patient had an attack of hysterical epilepsy, which postponed matters. This occurred the second time, when I adopted the strategic move of making the operation without foreknowledge on her part. The patient was placed, as usual during her local treatment, in Sim's position. I quickly denuded the surface, but trouble began in patient's head before I could insert the sutures. I took a cup pessary, and applying it over the cervix, packed the vagina with a cotton tampon, fixing thereby the stem of the pessary. The patient was accustomed to applications of cotton glyceroles, and with additional persuasion became quiet. The next day she was informed of the condition of matters, and remained quiet in bed. Every other day I removed and replaced the cotton tampon, carefully keeping the cup pessary in place by holding the stem. This procedure was kept up for ten days, when I ventured to look at the cervix, and had no reason to be dissatisfied with the result. The surfaces were united. The patient was put on increasing doses of bromide of zinc, which, together with a change of climate, worked a cure.

#### SOME POINTS IN REGARD TO TROPHIC NERVE CELLS.

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Written for the MEDICAL AND SURGICAL REPORTER.

(Concluded from p. 64.)

Let me reason from our premises a little further: Is not the molecular motion in the cells of a muscle transformed into the molar motion of the bone to which it is attached? But these muscle cells received molecular impulses from nerve cells by the way of nerves. Now, suppose that the cells of a muscle are so arranged that their molecular motion cannot, as it were, be added up into a visible motion; then there would be simply molecular motion in the muscle. And because the molecular motion is invisible, can we conclude that such motion does not exist? And can we say that such motion, if it does exist, has no relation to nutrition? We might just as well say that heat has nothing to do with nutrition, when we know that nutrition stops without heat. But our supposition exactly fits the case of any cell that is not a muscle cell. That is, a nerve cell may be co-related to a cell, and be associated in the work of making simple molecular motion in that cell; that is, a motion that does not eventuate in molar motion; and, from all

that we can know, this molecular motion is intimately concerned in the process of nutrition.

Now, let it be assumed that a Pacinian corpuscle envelops the end of a single nerve, and that the nerve has a sensory function. It is true, that the end of this nerve is enclosed, at times, by as many as sixty capsules, made up of a great number of fusiform cells, which, to some extent, resemble the cells of the connective tissue. There are two points to be noted in regard to these envelopes of a Pacinian corpuscle: (1) As the nerve end seems to be concerned with the sense of touch, the mechanical influence of an impinging body is transmitted through the fusiform structure of the capsule to the nerve end, and correlated into a motion that can go along the axis cylinder of the nerve to the nerve cell at the other end of the nerve. Indeed, the conditions here are somewhat like the conditions relating to the cornea. The cornea is transparent to a certain kind of molecular motion, and the Pacinian corpuscle is transparent to a certain kind of mechanical motion. The fibrils of the nerve are in a bundle in the Pacinian corpuscle; the fibrils of the nerve are separated in the cornea.

(2) It is quite evident that the nerve cell at the other end of the nerve, through the nerve which penetrates the Pacinian corpuscle, as it were, presides over the multitude of cells that go to make up the investing layers of this capsule. That is, there is a very considerable territory of cells, in some way coördinated with a single nerve cell. And, in regard to this coördination, it would make no difference whether a sensory or a motor nerve penetrated the Pacinian corpuscle; break up this coördination, and the nutrition and the function of the part would be disturbed. And in regard to the cell territory, it more and more appears that the destiny of nerve cells is to preside over such territories. But there are certain possible exceptions to this relation, which may be intimated as follows, namely:—

(1) In the early life of the embryo, so far as we now know, there are no nerve cells—surely there are no nerves; the cells appear to be all alike; and yet there are cells that are destined to be nerve cells, or the antecedents of nerve cells, and have nerves. But yet is it not a matter to be considered, that the primitive cells of the embryo are in some way co-related to the complex nervous organism of the mother? Who does not know about the strange results to the embryo coming from disturbances of the maternal nerve cells? Can we then say with confidence

that the cells of the embryo are nourished and proliferated without the intervention of nerve cells and nerves? Note in this connection, the extraordinary development of the peri-uterine sympathetic system during pregnancy. It seems to be the fact, that the cells of the embryo constitute for a time a kind of outlying territory, that is still under the domination of the maternal nerve cells, in an indirect manner. Well, if these things are so, our first exception is not a real exception.

(2) In the blood there is the most active nutrition going on constantly, and yet there is no anatomical connection between the nerve cells and the blood cells. But there is a dynamic relation at most times between the blood cells and the nerve cells, as well as other cells in various parts of the body, and the nerve cells would not get along without the blood cells, any more than the blood cells would get along without the nerve cells.

We may, therefore, truly look upon the blood as containing a community of cells, which are not continuous with any nerves in an anatomical way, but which are related to nerve cells, and we may affirm that there is a correlation of energy constantly going on between these two kinds of cells. And so far, indeed, as respects the blood, do the nerve cells have a trophic function.

(3) In *granulation tissue*, where, to be sure, we do not find nerves, there is a remarkable activity in the elements of the protoplasm, in which not only nutrition, but also proliferation is taking place. And I may ask, who is ignorant of the fact that granulation tissue is apt to form either badly or not at all, in paralyzed parts? Are not the tissues on which granulation tissue begins to form full of nerves? And is not granulation tissue very often tender and painful? Well, very briefly let me say, that granulation cells and nerve cells are not only co-related, but they are also correlated. The granulation cells constitute an outlying cell territory, that we may in some sense liken to primitive embryonic tissue. And yet the granulation cells have the capacity to be affected by the influence of that most highly differentiated cell—the nerve cell. And this means, that the trophic powers of the nerve cell are concerned with the *trophic* powers of the granulation cell. Let me add, that what has just been said of young scar tissue may also be said of adult scar tissue. And so again, if these things are so, our second and third exceptions are apparent and not real exceptions.

And in this connection let me say, that the formation of granulation tissue in parts that have

lost sensation and voluntary motion takes place, in all probability, under the constructive influence of the ganglionic nerve cells, as well, perhaps, as under the influence of integral spinal cells below the pathological severance of the cord. In the next paragraph a case will be introduced that will illustrate this interesting point.

The following case of fracture of the dorsal spine is quite fully reported on page 799 of the American edition of "Holmes' Surgery." A shoemaker, twenty-four years of age, fell from a second floor window, broke his back near the middle, causing loss of motion and sensation in both lower extremities, and in a little more than four months recovered, except there was a defective sensation in a small part of the right leg. For seven years he was well and active; in the next year he had a fever, and a pain in the back; for five years more he continued in good health; he then began to have progressive paraplegia, and finally was bed-ridden, having extensive sores on his hips. The sacrum, ischia, and trochanters were foul and sloughy to a great depth, and did not cause any pain. Diet, stimulants, quinine, opium, and a water-bed, gave the patient considerable strength. The bed-sores, which were dressed chiefly with the balsam of Peru, filled with healthy granulations, and cicatrized as quickly as in the soundest constitution. Near his death, which followed extreme exhaustion, he had profuse perspiration on the parts of his body that were not paralyzed.

The post-mortem examination disclosed a fracture of the fifth dorsal vertebra; a degeneration of about two and a half inches of the cord; an obliteration of the corresponding nerve roots; and the upper and lower parts of the cord held by connective tissue and the pia mater.

In this case may be noted some interesting points:—

(1) The nerve cells of a considerable part of the cord were disintegrated. It would seem that the nerve cells did not inflame, nor proliferate under the stress of a prolonged irritation. Indeed, there was no repair of nerve structure and no restoration of nerve function; for when the nerve cells perished no new nerve cells took their place. And it appears that highly differentiated cells have not the same ability to proliferate as the cells of the connective tissue.

(2) Some of the original connective tissue remained in and around the obliterated part of the cord, and some new connective tissue was added thereto, as it were, in the form of scar-tissue. *Here there was inflammation and proliferation as well.* And we may note the difference between

the connective tissue and the nerve tissue under the influence of an irritation. The connective tissue cells live and increase in number, and the nerve cells perish; and may we ask, *Which cell is the fittest to survive?* In fact, the cell that survives is the one of lowest differentiation.

(3) But, as Brown-Sequard and M. Charcot would say, the point of capital importance was the irritation, or the inflammation, that supervened in and around the cord. The irritation and the inflammation were connected with the bed sores; but how were they connected?

During a long time the nerve cells of the injured part of the cord did good work; but during a long time, the time of progressive paraplegia, the nerve cells of the injured part of the cord did imperfect work. Now we may suppose that in the degenerating spinal cells there was an irritation which was communicated in some way to the cells of the sympathetic ganglia and to the cells of the cord below the injury; and we may infer that there is an irritation communicated to various cell territories to which certain nerves are distributed—an irritation coming from the degenerating nerve cells of the cord, and from the disturbed nerve cells of the sympathetic ganglia and the cord below the injury. In fact, there was a disturbance of the normal coördination of work between the nerve cells of the ganglia and the cord; and there was a disturbance of the correlation between the nerve cells of the ganglia and the cord on one hand and the cells of certain outlying territories of the body on the other hand, so that many of these cell territories perished. But the most significant part of this case, perhaps, consists in the fact that the bed sores went through a most laudable process of cicatrization after the complete degeneration of the cord for about two and a half inches, and during all this time the patient was approaching his death step by step. There was a complete structural and functional severance of the cord, but the sympathetic ganglia remained intact. And we may suppose, in the most reasonable manner, that the nerve cells of the sympathetic ganglia continued to do good work after they were no longer irritated by the degenerating nerve cells of the cord; and we may also suppose that the nerve cells of the lumbar enlargement of the cord performed some laudable work after the death of their neighbors in the cord above. In fact, we may suppose that the nerve cells which were left performed their own work as well as they could under the circumstances, and may be, tried to perform the work of the degenerated nerve cells. And yet, it may

be remarked that, though the scar tissue seemed to form well, there was something radically wrong in the nutrition of the cell territories in general, for the coördination of the cell work of the body was so far disturbed that the nutrition could go on no longer.

In this case there was finally a total loss of sensation and voluntary motion, which, as a matter of course, had something to do with the derangement of the nutrition. And in this place the attention may be fixed for a moment on the fact that the sweat glands had lost their function below the seat of the injury, and that above the seat of the injury they had come to have a very exaggerated function. In what way this disturbance of the sweat glands took place it is only possible to conjecture; however, the disturbance relates to the nutrition. But yet it would seem competent for us to conclude that the irritation of the nerve cells of the sympathetic ganglia had very much to do with the production of the bed sores, and that, when this irritation had ceased, the bed sores cicatrized under the influence of healthier nerve cells.

(4) Let me point out what I have often observed in fatal cases of spinal injury, that the nutrition of the parts paralyzed is so deviated from its normal procedure as to be competent to give off abnormal waste products, which will impede the proper nutrition of the parts above the seat of the injury. There is, as it were, a kind of degeneration going on in the cells of the parts that have been paralyzed, and death at last takes place, mostly from extreme exhaustion and a kind of septic poisoning. At any rate this goes to show that the cells of the sympathetic ganglia, whatever their function, have, indeed, a coördinate relation with the cells of the cord; and that the sympathetic cells cannot do their work properly apart from the spinal cells; and that the spinal cells cannot properly carry on their functions without the aid of the sympathetic cells.

In fact, it may be set down that there is not only a co-relation, but also a coördination between the cells of the spinal cord and the cells of the pre vertebral ganglia, and that special cells perform special work, and that some of the special work performed is *trophic* work. And it may also be set down that there are special ganglia co-related and coördinated, not only with the pre vertebral ganglia, but also with the gray matter of the cord, such as the semilunar and renal ganglia, as before noted, and that these ganglia have also special work, some of which work is indeed trophic in its nature. And so we

surely arrive at the conclusion that the *trophic nerve cells* are not all in the gray matter of the cord, but that some of these cells are to be found in the gray matter of the sympathetic ganglia. We also arrive at the conclusions, that in the correlation of some nerve cells and muscle cells molecular motion eventuates in molar motion, and that in the correlation of some nerve cells and certain other special cells, molecular motion continues to be molecular motion. And the fact that we cannot see the motions of nutrition, and that we can see the motions of progression, does not prove that the motions of nutrition do not take place, and that these motions are not in some way correlated, in part, at least, to the *energy of nerve cells*. Indeed, the convertibility of molecular and molar motions, and the analogies between special cells of the body, ought to lead us to the view that the work of the nerve cells and the work of cell territories are intimately associated, no matter what the uses are to which protoplasm may be put.

In fine, conclusions may be reached, that it is not quite correct to speak of *trophic nerves*, while it is more correct to speak of *trophic nerve cells*; that the trophic nerve cells are not all found in the gray matter of the anterior horns of the cord, but that some of the trophic nerve cells are found in the ganglia of the sympathetic. In a word, the nerve cells of the cord and the nerve cells of the sympathetic ganglia coöperate, as the cases above noted indicate, in the work of nutrition. A great many cases might be brought forward whose evidence would tend to the same conclusion. But I have already written enough to direct attention to a subject of capital importance—and that is, the general coördinate and inter-dependent work of all the special cells of the body. And I may only add, that it would take up too much time and space at present to write anything on the trophic relations of the nerve cells of the brain.

## HOSPITAL REPORTS.

### UNIVERSITY HOSPITAL.

CLINIC OF LOUIS A. DUHRING, M.D.,  
Professor of Dermatology.

Reported by LOUIS J. LAUTENBACH, M.D.

TINEA TONSURANS; SYPHILITIC GUMMA; PAPULOSQUAMOUS SYPHILODERM; VESICO-PAPULAR ECZEMA.

#### Tinea Tonsurans.

This little boy has been brought to the clinic by one of the students. He comes from a neighboring town, with a disease of the scalp. The first thing that we notice is that his hair has been clipped. He is about eight years old, fairly nourished, and has light hair; he is spare and

has the general appearance of a strumous disposition. He probably cares little for meats, or fats of any kind; he says that he never eats fatty food.

Examining the disease, we observe that it occupies the greater part of the scalp, in the form of a good deal of scaling, which has been plastered down by ointments; in addition, we see signs of the disease in the form of irregularly rounded patches, which are somewhat bald. Over the occipital region we have the outline of quite large patches, which have coalesced. The disease, from its appearance, has probably lasted for six weeks or longer. He says it started three months ago. Looking more carefully, we see that the hairs are partially destroyed on the patches. In addition to the patches being bald, the orifices of the follicles are puckered, the skin looking like that of a plucked goose. This appearance is pathognomonic of ringworm of the scalp—*tinea tonsurans*.

Examining the disease more closely, we see a number of stumpy hairs, which can be easily plucked out. Placing these hairs under the microscope, we shall observe that they are thoroughly invaded by the parasite. The patches of baldness are more or less irregular in outline, and in the parietal region we observe the hairs thoroughly "nibbled off" by the parasite.

The diseases with which we are likely to confound it are seborrhœa and squamous eczema. Considering the partial baldness of the patches, the stumpy, loose hairs, and the presence of the parasite, there is no difficulty in diagnosing the case from eczema. From seborrhœa it can be diagnosed by the fact that the hairs are nibbled off, and destroyed, while in seborrhœa atrophy occurs. Again, in seborrhœa we have simple epithelial and fatty degenerated scales; here we have not only the scales, but also the hairs invaded by the parasite. The diagnostic aid which the microscope gives us is often of great importance, and no one can work in this branch of medicine without its valuable assistance.

The disease is common in children's asylums, and it is here that the worst cases are seen. Once having found its entrance, if not energetically treated, it will rapidly spread, until perhaps 20 or 40 per cent. of the inmates have the disease. The treatment in such cases is difficult.

In all cases there are two lines of treatment to be observed: depilation, or the extraction of the hairs, and the use of a parasiticide; being careful, however, not to use too strong ointments or solutions, lest you cause undue inflammation. The disease is treated somewhat differently, according as it occurs on small or large areas of surface, in the latter case being more difficult to cure.

As parasiticides, the sulphur preparations are all valuable, in the form either of ointments or solutions. In this case we cannot do better than order sulphurous acid. Before applying this, we will direct the scalp to be cleaned with warm water and soft soap twice a day, after which the acid is to be used by dabbing it on with a soft rag, it being diluted at first with two or four parts of water, increasing the strength until it is used pure. If the skin, during our treatment, becomes dry, we may combine with other treat-



ment the use of cosmoline. Besides this, depilation must be practiced, the loose hairs being removed by the forceps.

Another remedy which is sometimes used is corrosive sublimate; it being employed of the strength of from one to five grains to the ounce of water or alcohol. It is, however, liable to be absorbed and to produce constitutional symptoms, especially if applied to large surfaces. Such cases have been reported, and one case where the use of a ten-grain solution was followed by death. I must say, however, that I have never seen any cases of this kind.

The disease is liable to relapse, and even when it appears to be perfectly cured it is best to keep on for several weeks with a mild parasiticide. To illustrate the liability to relapse, I need only mention that a similar case to the one before us was brought to me a few years ago, which three or four times I thought entirely well, and yet each time but the last, when he was perfectly cured, he was brought back to me with a return of the disease. This shows that you should not pronounce such a case well until a month or two after the entire disappearance of the disease.

There is no danger of the adult contracting tinea tonsurans; but there is great danger of children contracting it. Male adults are, of course, liable to contract tinea sycosis, which, as you know, is due to the same fungus—the trichophyton.

#### Syphilitic Gumma.

This colored man, aged 25 years, comes with the history that he has been under treatment for syphilitic disease of the skin, and that he recovered, and that he now has a tumor the size of a half walnut situated over the upper part of the sternum. The tumor is slightly red, illy defined in outline, and has a fluctuating feel. If we ask him how long he has had it he will probably say that it has existed two or three months; the latter period he says is correct.

We have here a typical syphilitic gumma, in which the process of breaking down is now occurring. He says it has been painful, but that it is not now so, unless pressed upon.

The only disease that we are likely to confound this with is simple abscess. It is quite common to find gummata in this situation. If he is put under treatment it may either be absorbed or it may rupture; it is difficult to say which, but I am inclined to think, nevertheless, that it will open.

We will put him on potassium iodide, ten grains, and gradually increase to twenty grains, three times a day. In three or four weeks we will put him on potassium iodide, five grains, and the bin-iodide of mercury, one-sixteenth of a grain. This preparation of mercury is, I think, more satisfactory than corrosive sublimate; as a rule it agrees better with the patient.

#### Papulo-Squamous Syphiloderm.

This man, aged thirty, comes to us with a disease of the skin which has existed six weeks, and for which he has been under no treatment. Flat patches and papules slightly scaly occupy the forehead and face, the lower extremities and the forearms symmetrically, the scalp, and the back

of the neck. The disease invaded all parts of the body at the same time, all within a week, and has been getting worse steadily.

In endeavoring to make a diagnosis we naturally think of two diseases, viz: psoriasis and the papulo-squamous syphiloderm. He has never had any disease of the skin before, nor has he, he states, ever had any venereal disease.

If a syphilitic eruption, it might have come on at any time after the second or third month subsequent to the chancre or initial lesion, but it usually comes on much later. The glands now are not involved. He has, however, he says, sore throat, which came on shortly before the appearance of the eruption.

Here, on the leg, we see the characteristic, syphilitic moist papule. It is sharply defined, has a glazed surface, with a central depression marked by considerable induration; it gives the diagnosis at once. Now we look for infiltration, because in the syphilitic papule there is more infiltration than in papular psoriasis. On the forearm we also see flat papules, with a tendency to break down in the centre.

We have here, then, a case where the man denies all knowledge of the primary lesion, and yet it is surely a case of papulo squamous syphilis. To distinguish this from psoriasis, we have the fact that the infiltration is here more marked; the papule is more circumscribed and is more papular; and there is a tendency to depression in the centre, which shows the destructive metamorphosis. The lesions, indeed, are often difficult to diagnose from psoriasis. The man should be told of his disease, and what can be done for him in the way of treatment, and he should also be informed of the probable effects of the disease if not properly treated.

#### Vesico-Papular Eczema.

This young man was sent here from a neighboring town, with a history of a chronic disease of the skin, which, when first seen, was diagnosed as chronic eczema. It occupied the thighs, legs, feet, back, forearms and hands. As you see, he is pale and anemic. To-day all the lesions are so improved that the former disease is scarcely to be recognized. On the back, however, we observe broken down vesicles in the form of a patch. On the shoulders the disease is more marked, and in the form of vesico-papules. Accompanying the disease there is a great deal of itching. Three or four days ago various sized pustules, now scarcely to be observed, were present. The case is both an interesting and a serious one. The disease first appeared three years ago, in the same form, on the arms. Some weeks afterward the disease repeated itself on the hands, since which time it has been getting "better and worse." For the last six months it has been getting steadily worse, and last month it was very bad, the itching being intense, not allowing him to sleep.

Coming now to treatment: At first we used the "liquor carbonis detergens," a solution of coal tar in alcohol, used in the strength of a f3j to f3ij of water. This was applied to relieve the itching. After ablation with this, he was anointed with oxide of zinc and petroleum ointment, equal parts. Internally he took tr. ferri

chlor. gtt. x, and quinia sulph. gr. ij, three times a day. Later, as he was not much better, he was ordered ung. picis et ung. petrolei, equal parts. The next day, as he was markedly worse, it seemed evident that the ointment did not suit him, when he returned to the first line of treatment, and he has since improved considerably. In order to procure sleep, we have been using chloral gr. xv, et potass. brom. gr. xx.

## MEDICAL SOCIETIES.

### OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, January 5th, 1882. The President, Dr. E. L. Duer, in the chair.

Dr. Wm. Goodell reported the following case of

#### Extra-uterine Foetation.

Mrs. B. C., aged thirty, had been married two years without conceiving, but on March 19th her catamenia ceased, and she deemed herself pregnant. She now began to suffer very much from nausea and from pelvic pains, for which her physician, Dr. W. C. Parry, of Mount Holly, New Jersey, was in attendance more or less after May 6th. On May 16th, while ironing, she was suddenly taken with a violent colicky pain in her right groin, accompanied by a vaginal flow of blood and by collapse. These colics lasted off and on up to July 15th, when she felt relieved. Dr. Parry had meantime discovered a pelvic tumor on the right side of the womb, and had diagnosed extra-uterine foetation. But from September 5th to 13th she had great bearing-down pains, like those of labor, attended by some hemorrhage. The cervical canal dilated sufficiently to admit the finger, a miscarriage seemed imminent, but nothing was thrown off. This threw the physician off his track, and he renounced the idea of extra-uterine foetation for that of natural pregnancy. She had felt foetal movements, but from this time the child was still, and milk appeared in the breasts.

Her health now began unaccountably to fail, she lost flesh and strength, and became bed-ridden. During the first week of last November she had another hemorrhage, with labor-like pains, and the cervical canal and os-externum again dilated during the disturbance. From this time she began to fail very rapidly, having chills, a high temperature, a frequent pulse, and quick emaciation. On November 15th I was called in to see her. On account of the excessive tenderness of the parts, ether was given. An irregular tumor occupied the abdomen, but smaller than the uterine globe at eight months' gestation: neither foetal limbs nor the foetal outline could be felt, nor could the presence of any fluid be made out. The cervix uteri was in a natural position, quite hard, and with a small os-externum. The sound passed in five inches, and to the left. No foetal sounds or uterine murmur could be detected. My diagnosis was a guarded one, but leaned to an extra uterine gestation.

On November 24th, aided by Dr. B. F. Baer, of Philadelphia, and Drs. W. C. Parry, A. E. Budd and R. E. Brown, of Mt. Holly, I per-

formed the operation of laparotomy. As soon as the peritoneum was cut open an adventitious cyst was exposed. I perforated it with a probe and enlarged the opening with a uterine dilator. Finding that the placenta covered the whole lower three-fourths of the sac, I prolonged the opening upward and removed the foetus. It was macerated and had been dead some time, as the flesh over the ribs was stripped off during the process of extraction. The placenta was now very slowly and carefully stripped off without any hemorrhage; every preparation had been made to meet one. Not any liquor amnii was present. The sac was then thoroughly cleansed with a carbolated solution, and every antiseptic precaution taken. The opening in the sac was stitched to that of the abdomen; a glass drainage tube put in and the wound dressed with salicylated cotton. Up to December 9th, everything went well; the wound united perfectly, the stitches were taken out, the temperature had fallen, and the drainage tube was about to be removed, when, near midnight, she very unaccountably went into convulsions; these recurred and she died comatose on the morning of the 12th. Albumen was found in the urine, and at an autopsy, the kidneys were found to be diseased. The foetal sac had become obliterated, and no relation whatever could be discovered between the condition of extra-uterine foetation and that of the kidneys which carried her off: the latter seemed to be an accident, and in no wise related to the former. From the history of this case, there is no question in my mind that the operation of laparotomy for extra-uterine foetation must be far more successful after the death of the child. For when the child is living it would, on account of the inevitable hemorrhage, be unjustifiable to remove the placenta; and the presence of so large a mass, which must slough off and putrefy, will seriously compromise the life of the woman. But when the child has been dead for some time, the placenta can be safely peeled off, and the sac be wholly emptied, as in my case.

Dr. Goodell also reported

#### A Successful Case of Hysterectomy.

The patient, a mulatto of thirty-five, had cystic degeneration of each ovary. The pelvic and intestinal adhesions were of the most formidable character, making in themselves a long and a bloody operation. But in addition to these complications, each ovary was so incorporated with the womb that he was obliged to remove that organ. This he did by dissecting off the bladder, by applying the wire-clamp at a point midway between the os externum and the os internum, and by transfixing the stump with two pins. Strange as it may seem, on the fourth and fifth days quite a smart menstrual flux, or rather a metrostaxis, took place from this small cervical fragment. The clamp fell off on the fourteenth day, leaving a very large and deep funnel-shaped opening, which is now rapidly filling up. It is now three weeks since the operation and the patient is convalescent. He stated that ovarian tumors are rare in the colored race; this being the second case only which he had seen. On the other hand, fibroids of the womb and fibro cystic

tumors are more common with them than with the white race.

Dr. B. F. Baer exhibited a

**Monocyst, probably of the Ovary, but which contained Limpid Fluid.**

M. J. T., aged forty; single; catamenia regular. In October, 1880, she discovered an abdominal tumor in the centre of the hypogastrium. She has been growing thin in flesh with the growth of the tumor. It apparently has varied in the degree of tension, being sometimes more flaccid than at others. Physical examination revealed a cyst of the abdomen, not very tense, extending one handbreadth above the navel; the coronal resonance was very marked; dullness on percussion was also marked, and there was perfect fluctuation throughout the tumor. The womb was movable, flexed to the right, and lay behind the tumor. The sound passed three inches.

From the flaccidity of the cyst, I was at first inclined to believe it to be a cyst of the broad ligament; but the rapid growth of the tumor, and the quick emaciation of the patient pointed rather to an ovarian cyst.

On December 31st, 1881, the tumor was removed by Prof. Wm. Goodell. It was found to occupy a position to the left of the uterus, and was at first thought to be a cyst of the broad ligament, for the following reasons: It was a thin-walled monocyst, and contained a perfectly limpid fluid. The fallopian tube was stretched over the surface of the tumor and elongated; the fimbriae were spread out on the wall of the cyst. But after a very careful search the ovary could not be found. In a cyst of the par-ovarium the ovary usually occupies a position on the side of the tumor, more or less closely attached to it by a mesovarium. After the pedicle had been ligated, and the tumor cut away, another careful search was made for the ovary, both in the pelvis and on the cyst, but it was not found. The right ovary was found in the normal position and was healthy. The only portion of the cyst-wall which in any way resembles the remains of a degenerated ovary, is a dense white substance corresponding in position to that which would probably be occupied by the ovary; but this forms part of the cyst wall, as the tunica albuginea does in ovarian cystic disease, and there is no sign of an attachment by a mesovarium.

The interest in this specimen hinges on the organ from which it was developed, if it could be proven that it originated in the parovarium, then it is of no special interest, because the arrangement of the external and middle coats allows them to be readily separated from one another, and the fallopian tube is related to the cyst wall in the manner described by Dr. Bantock as peculiar to parovarian cysts; the fluid furnished by it also corresponds to that usually found in such a cyst. But if it is a monocyst of the ovary it then becomes of special interest, for it is denied by several recent writers (Bantock and Tait, for instance), that monocystic tumors ever occur in the ovary, but that when such a cyst is found it is always of parovarian origin. Now that seems to be too sweeping a statement, for many eminent authors, among

them Wells, Peaslee, and Atlee, speak of having met with unilocular ovarian cysts, and I can recall a case of a large monocyst removed by Dr. Goodell from a young lady of twenty years, in which the history, the relative position of the fallopian tube to the cyst wall, the close adherence of the different coats to one another, the albuminous fluid, rich in cells, and the absence of the ovary, pointed pretty clearly to ovarian disease rather than to parovarian.

I also present another specimen, which proves beyond a doubt that a monocyst may occur, at least while the cyst is small. This specimen was removed by Dr. Goodell from a lady, twenty-two years of age. It presents a single cyst in each ovary, and in addition a cyst in the broad ligament of one side.

Again, if the specimen first exhibited originated in the ovary, it presented an unusual feature in the character of its fluid, which was limpid and devoid of cells. If it did not spring from the ovary, why could not that organ be found? It could hardly be congenitally absent, when all the organs in its neighborhood, fallopian tube, broad ligament and parovarium, were present.

Dr. Goodell did not consider this cyst one of the ovary, simply because the corresponding ovary could not be found, for one cannot make a prolonged search at such a time. Besides, he had never seen such a clear fluid from an ovarian cyst. Again, another diagnostic point of a broad ligament cyst is the alternations of tenseness and flaccidity. So this cyst was sometimes quite tense, and at others so relaxed as to make it quite difficult to define its outlines. An ovarian cyst, on the contrary, is always tense, even if it has been recently tapped but refilling. Further, the peritoneal and other layers of the wall of an ovarian cyst are so firmly matted together by the cicatrices made by the escape of Graafian follicles that they cannot be easily separated. In this specimen the layers are, like those of a parovarian cyst, very easily torn apart. He himself had no doubt that the cyst is one of the parovarium.

Dr. T. M. Drysdale believed that a thorough search of the cyst might disclose the presence of the ovary, as he had, in several cases of tumor of the broad ligament, discovered the missing ovary spread over and incorporated in the cyst wall. He also considered the limpid fluid, free from cells, an incontrovertible diagnostic point.

#### Juvenile Alcoholism.

A few days ago a young girl of fourteen died in the slums of this city, under peculiar circumstances. From her earliest childhood she had been accustomed to the free use of the poisonous whisky found in that neighborhood, and became a confirmed drunkard before her twelfth year. One evening lately she attended a ball in the house of a neighbor, and returned home about one in the morning, very much intoxicated. The next morning she was seized with pain in the stomach, vomiting, headache and fever. She grew gradually worse for three or four days, and finally died. A suspicion of poison in the whisky caused the Coroner to make a careful investigation, the result of which was a verdict of "Death from Chronic Alcoholism," in a girl only fourteen years old.

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### The Causes of the Reduplication of Heart Sounds.

In an article on this subject in the *Medical Times and Gazette*, Dr. E. Sansom says:—

Physiological reduplication at the end of inspiration is accounted for by the fact that the capacity of the pulmonary system being increased, the obstructive burden upon the right ventricle is lessened—consequently the systole of the latter is shortened. The lessening of the duration of the systole of the right ventricle implies anticipation of the diastolic closure of the pulmonary semilunar valves; so there is a reduplicate second sound, the primary element being pulmonary. In pathological reduplication the origin may be in either the right or the left ventricle. If from any cause the systole of one of the ventricles be protracted, the diastolic closure of the valves of its great vessels of exit will be delayed also, and so the second sound will be double.

Guttmann supports the view of non-simultaneous closure of the aortic and pulmonary valves, without giving reasons for the proximate cause. He says, however, that it is not unreasonable to explain it by a change in a single set of the semilunar valves causing their tension to take place in two distinct movements. This hypothesis appears to me impossible to accept: such change would surely be likely to produce murmur rather than reduplication. But Guttmann says that reduplication of the second sound in mitral stenosis is difficult to account for satisfactorily, and in this I quite agree with him. He adds, "The broken diastolic sound is (so far as I have observed) certainly not loudest over the large vessels, but at the lower part of the sternum and near the apex of the heart, and is further absent in the more marked cases of mitral contraction, precisely in the cases in which the conditions most favorable to the postponement of the closure of the pulmonary valve are present in their highest degree." Reduplication, however, does not occur in mitral regurgitation, where the conditions of relative blood pressure are profoundly altered. Guttmann considers it probable that the reduplication may arise at the narrowed mitral orifice itself, that it may be a component part of a presystolic (or, as he terms it, diastolic) murmur, and adds that it has been conjectured that the first element of the reduplication is the diastolic pulmonary sound, and the second is produced, toward the end of diastole, by the contraction of the hypertrophied left auricle. In fact, the hypothesis reverts to the last I have mentioned as probably explaining some cases of reduplication of the first sound.

I consider, then, that there is a theory of auricular causation of reduplication of the second sound which is well worth considering, and that we have before us as plausible explanations of the phenomenon—

(a) That it is due to non-simultaneous closure

of the semilunar valves in the aorta and the pulmonary artery respectively.

(b) That it is the effect of a sudden tension of the mitral curtains after the normal second sound.

#### Investigations into the Alleged Germ Origin of Malarial Fevers.

It is well known to our readers that various observers have claimed to have discovered the minute organisms which give rise to malarial fevers. Chief among these of late have been Klebs, and Tommasi-Crudeli. Their experiments have been closely followed, and an independent series of investigations made by Dr. George Sternberg, surgeon U. S. A., while at New Orleans. His report is in Supplement No. 14 to the *National Board of Health Bulletin*, accompanied by photographs and charts, and his results are so interesting that we quote his conclusions in detail:—

A great number of minute algae, including bacteria of various forms, are found upon the surface of swamp-mud in the vicinity of New Orleans, and also in the gutters within the city limits.

Many of those forms may be successfully cultivated in fish gelatine solution (method of Klebs), and this fluid, previously innocuous, acquires pathogenic properties as the result of inoculation with these organisms.

It is evident that the pathogenic properties acquired by gelatine solution and other organic liquids, after inoculation with bacterial organisms, is due, directly, or indirectly, to the presence of these bacteria, for, if they are excluded, such fluids may be kept indefinitely without undergoing change, and are innocuous when injected beneath the skin of a rabbit.

Some of the organisms found in swamp-mud, in gutter-water, and in human saliva are capable of multiplying within the body of a living rabbit, and the fluids and organs containing them (blood, serum from cellular tissue, spleen, etc.), possess virulent properties. In other words, an infectious disease is produced which may be transmitted from animal to animal by inoculation.

Among the organisms found upon the surface of swamp mud, near New Orleans, and in the gutters within the city limits, are some which closely resemble and, perhaps, are identical with the *Bacillus malarie* of Klebs and Tommasi-Crudeli; but there is no satisfactory evidence that these, or any other of the bacterial organisms, found in such situations, when injected beneath the skin of a rabbit, give rise to a malarial fever corresponding with the ordinary paludal fevers to which man is subject.

The evidence upon which Klebs and Tommasi-Crudeli have based their claim of the discovery of a *Bacillus malariae* cannot be accepted as sufficient; (a) because in their experiments and in my own the temperature curve in the rabbits operated upon has in no case exhibited a marked and distinctive paroxysmal character; (b) be-



cause healthy rabbits sometimes exhibit diurnal variations of temperature (resulting apparently from changes in the external temperature), as marked as those shown in their charts; (c) because changes in the spleen such as they describe are not evidence of death from malarial fever, inasmuch as similar changes occur in the spleens of rabbits dead from septicæmia produced by the subcutaneous injection of human saliva; (d) because the presence of dark-colored pigment in the spleen cannot be taken as evidence of death from malarial fever, inasmuch as this is frequently found in the spleen of septicæmic rabbits.

While, however, the evidence upon which Klebs and Tommasi-Crudeli have based their claim to a discovery is not satisfactory, and their conclusions are shown not to be well founded, there is nothing in my researches to indicate that the so-called *Bacillus malarie*, or some other of the minute organisms associated with it, is not the active agent in the causation of malarial fevers in man. On the other hand, there are many circumstances in favor of the hypothesis that the etiology of these fevers is connected, directly or indirectly, with the presence of these organisms or their germs in the air and water of malarial localities.

The truth or falsity of this hypothesis can only be settled by extended experimental investigations, and while further experiments upon animals may lead to more definite results, it seems probable that the *experimentum crucis* must be made upon man himself.

In a disease not of a fatal character, and one for which we have a prompt and reliable remedy, it would seem that subjects for experiment might be found, especially among medical men and medical students, who have always shown themselves ready to subject themselves to inconvenience, or even to danger, in the pursuit of scientific discoveries of value to mankind.

The method of conducting such experiments which seems to me to promise the best results is the isolation and cultivation of the various organisms found in malarial localities, which may possibly be concerned in the production of malaria, a careful study of the life histories of these organisms, and an experimental investigation of the physiological action of each when taken into the stomach, or respired in a dry state, by healthy individuals. Such a study, to be of value, will necessarily involve a considerable expenditure of time and money, and requires that the experimenters shall be familiar with the most approved methods of making culture experiments, and with the technique of microscopical manipulations with high powers, improved illuminating apparatus, etc.

Another method worthy of trial in connection with this, would be to carefully study the bacterial organisms found in the mouth and alimentary canal of persons suffering from malarial fevers as compared with the common forms constantly found in the same situations in healthy individuals, with reference to the determination of the presence of unusual forms, or of an abnormal abundance of common forms, or of possible physiological varieties of these forms not possessing morphological peculiarities.

Finally, I may say that I entered upon this investigation without prejudice, but hoping that I might be able to confirm the conclusions of Klebs and Tommasi-Crudeli, whose researches were evidently prompted by a truly scientific spirit, and were conducted in accordance with strictly scientific methods. I believe that their work will prove useful in many ways to future explorers in this field, and have an abiding faith that light will eventually be shed upon this and similar problems by the persistent and intelligent application of the experimental method supported by all the resources of modern science.

#### Pink Eye in Horses.

Dr. C. E. Page writes to the editor of the *Boston Medical and Surgical Journal* as follows:—

This disease in horses is one of the varieties of catarrhal or influenza colds, so called, prevalent in this climate among human beings, and springs from the same cause, namely, excessive, over frequent, or otherwise injudicious eating. The custom of working or exercising horses directly after eating; of feeding them directly after hard work, and before they are thoroughly rested; baiting at noon, when both these violations of a natural law are committed; these are the predisposing causes of pink eye, and of most diseases that afflict our horses. The symptoms denominated pink eye are not indicative of dangerous disease, unless feeding is kept up; but if it is, then pneumonia, which is merely an aggravation of the original disease, is very likely to result. Keep the horse quiet, dry, warm, and in a pure atmosphere. The nearer out-door air the better, and stop his feed entirely at the first symptom of disease, and he will speedily recover. As prevention is better than cure, horsemen will do well to heed the hint here given and keep their creatures from contracting this or any other ailment. It has been demonstrated in tens of thousands of cases, in family life, that two meals are not only ample for the hardest and most exhausting labors, physical or mental, but altogether best. The same thing has been fully proved in hundreds of instances with horses, and has never in a single instance failed, after a fair trial, to work the best results.

An hour's rest at noon is vastly more restoring to a tired animal, whether horse or man, than a meal of any sort, although the latter may prove more stimulating. The morning meal given, if possible, early enough for partial stomach digestion before the muscular and nervous systems are called into active play; the night meal offered long enough after work to ensure a rested condition of the body; a diet liberal enough but never excessive; this is the law and gospel of hygienic diet for either man or beast. If it be objected that these conditions cannot always be fully met in this active, work-a-day world, I reply, let us meet them as nearly as possible. We can, of course, do no more than this; but we can come nearer the mark on the two-meal system than on three. I will add, in parenthesis, that the nervous disorder commonly known as "pulling" will yield readily to this principle of treatment. It makes the puller healthy; he is better nourished and therefore less "nervous"; and he will

do more roading, and without excitement or profuse sweating. He is not made less ambitious by reason of reduced muscular power, but by reason of better digestion and assimilation—more *nourishment* and less *stimulation*. Horse dealers, or others, whose business or pleasure depends on the plump appearance of their animals, regardless of the size of their muscles, who must have a horse fat if he is not fleshy, for style, may have to take the chances and feed three times a day; but of this I am by no means sure. I have never tried to fatten my horses, for I long ago learned that fat is disease; but I have always found that if a horse does solid work enough he will be fairly plump if he has two sufficient meals. Muscle is the product of work and food; fat may be laid on by food alone. But for perfect health and immunity from disease, restriction of exercise must be met by restriction in diet. Horses require more food in cold than in warm weather, if performing the same labor. In case of a warm spell in winter I reduce their feed, more or less, according to circumstances, as surely as I do the amount of fuel consumed. I also adopt the same principle in my own diet. The result is, that neither my animals nor myself are ever for one moment sick.

#### *Eucalyptus Globulus* in Typhoid Fever.

Dr. Benjamin Bell, F.R.C.S.E., writes to the *Edinburgh Medical Journal*, August, 1881:—

This short note is supplementary to a former one published in this *Journal* (vol. xxiii, p. 680). After mentioning in that paper the remarkable benefit which, in my experience, had attended the administration of the tincture of the *Eucalyptus globulus*, or blue gum, in certain cases of what appeared to be very formidable disease of the stomach, I suggested that the same remedy might be found advantageous in cases of typhoid fever. My grounds for forming this anticipation are obvious enough. The drug possesses *antiseptic* qualities; it acts, as we have seen, beneficially upon the lining membrane of the stomach, perhaps of the duodenum. The characteristic lesion to be chiefly dreaded in typhoid fever is an irritated condition, a congestion, an inflammation, passing into ulcers or sloughs of the small follicular glands of the intestinal canal.

Ever since venturing to make the suggestion referred to, I have kept it in view, prescribing a teaspoonful of the tincture of *eucalyptus*, well diluted, at regular intervals of three or four hours, in all the cases of typhoid fever which have occurred. My distinct impression is that, as a rule, the duration of the disease has been shortened, and the tendency to diarrhoea diminished. If mixed with a large wineglassful of water, the medicine is far from disagreeable to the patient, and may be steadily administered in the intervals of nourishment without becoming irksome. By food, I mean milk and lime-water. As each dose of the tincture contains a drachm of spirits of wine, it is worthy of consideration that we are, in fact, giving a slight stimulant, not only well diluted, but possessed of a medicative property at the same time. This may, therefore, come in lieu of those other stimulants so often deemed desirable, at least in the advanced stages

of the fever, while, in the intervals of the bland, milky nutriment, it will be brought into immediate contact, as an antiseptic, with the seat of threatened ulceration and sloughing.

In private practice, with a comparatively small number of cases, it would be rash to speak dogmatically as to the results of treatment; but a reliable opinion might be arrived at, were physicians connected with a large hospital which admits fever cases to employ the remedy in every alternate case under their care. If those patients who got the medicine were found—after its employment in a considerable number of cases—to have made more rapid recoveries with fewer bad symptoms than those from whom it was withheld, it would be reasonable and safe to draw an inference in its favor.

I may mention that my confidence in the *eucalyptus* in cases such as those formerly described continues unabated. Indeed, it has been strengthened, not only by the results in cases coming under my own observation, but also by several aggravated examples throughout the country, reported to me by the first patient to whom I administered it. He had benevolently recommended it, on his own responsibility, when he heard of persons suffering similarly to himself, before his restoration to health.

#### Paralysis Simulating Plumbic Wrist Drop.

The *St. Louis Medical and Surgical Journal*, for September, 1881, contains the following report of a somewhat interesting case, by Dr. C. H. Hughes of St. Louis:—

Sadie F., married, aged twenty years, came under treatment October 23d, 1879, with persistent inability to extend the hands at the wrists, both of which dropped lifeless, like those of painter's palsy. When the hands hang at her side she feels as though they were full of blood. Some years ago this lady had rheumatism, of which there are, however, no remains. In June, of 1879, she had some kind of symptoms of a form the exact nature of which could not be distinctly made out from her description, during which she was frequently delirious. I infer, however, that it was typhoid with tardy convalescence and *cachæmia*. Several irregular physicians attended her; among them a locally famous faith doctor (called, on account of his negligent *personnel*, the dirty doctor) who, though interrogated about the patient on an occasion when he had summoned me to examine and advise concerning his insane wife, could give me no information of value. About August 1st, 1879, this person found she could not move at all; but she grew gradually able to move all parts of her body, except her wrists. When first able to move about, after her fever, she weighed 77 pounds, and two months later she weighed 110 pounds. During her illness she lost much sleep and ate little, but at the beginning of this report, she ate and slept well. Her general tactile sensibility was normal, even in the fingers of the affected hand, and she told me she had always had some feeling in them. Electro-muscular excitability in the parts remaining paralyzed was, in the beginning of treatment, extinct. The temperature of the



right wrist was 98° F., that of the left, 99° F. Under the daily use of galvanism, arsenic, phosphorus, and at night only the least depressing of the bromides, with malt and a generous diet, the paralyzed parts entirely regained, in a few months, their normal power of movement, and the patient, though of small stature, soon reached her natural weight of 130 pounds; no strychnia was employed. Duchenne's observation respecting the more favorable progress of traumatic paralysis, where muscular sensibility remains after the loss of contractility under the electric current, finds confirmation in this case.

The case is noted to show the fact, not infrequent in paralysis of the extremities, viz: That notwithstanding a paralyzed limb has remained long *in statu quo*, galvanism combined with proper internal therapeutics may excite anew the arrested progress towards recovery, and that a hope of escape often remains to the hopeful and persevering.

#### Addison's Disease.

At a meeting of the Pathological Society of London, held Tuesday, December 20th, 1881, reported in the *London Lancet*—

Dr. Fenwick showed a specimen of Addison's Disease of the supra-renal capsules, from a case without bronzing of the skin. The man was recently in the London Hospital, under the care of Dr. S. Fenwick. He was a laborer who had had fair health. About four months previously he caught cold; a month afterwards his urine became high-colored and scalding, and he was languid and suffered from vomiting. On admission he was very languid; the pulse was very feeble; there was no pigmentation of skin or the mucous membranes, and no signs of visceral disease; there was tenderness over the epigastrium. Addison's disease was diagnosed. On September 28th, on attempting to get out of bed, he fainted, and soon after died. At the autopsy the organs generally were healthy. The liver was enlarged, and the left kidney was much larger than the right. Both supra-renal capsules were enlarged, hard, and nodulated; they were translucent, and in places yellow. He had collected all the cases of Addison's disease recorded in the Pathological Transactions during the last fifteen years, and found they were thirty in all, twenty-three males and seven females. The youngest age of females at death was five, the oldest fifty-five; the youngest age of females nineteen, and the oldest fifty-five. Average duration of illness in non-bronzed cases was 4.8 months, but in bronzed cases it was 26.8 months. If patients, without bronzing of the skin, died in one-fifth of the time of the others, the greater fatality was due to the constitutional disease, and the mischief causing this must be more intense. The two non-identical effects must have two different causes, or the same cause acting upon two different parts; the former idea might be certainly excluded. He thought the constitutional changes were due to degeneration of the medullary part of the supra-renal capsule, while the pigmentation was due to a chemical change in the blood resulting from the degeneration of the cortex of the capsule. The

skin was well bronzed in nineteen cases, slightly or not at all in eleven. In four out of these eleven cases only one capsule was affected, and more often the right. In the case shown to-night the disease clearly mapped out the medulla. Dr. Wilks said that Addison had known that in the early stage the bronzing was less marked, and thought that some cases died before bronzing occurred.

#### Smallpox, followed by Ataxy.

At a meeting of the Harveian Society of London, held November 17th, 1881, and reported in the *London Lancet*—

Dr. G. C. Henderson read the report of a case of smallpox followed by ataxy. The patient, G. A., aged thirty-six, was admitted to the St. Pancras Tent Hospital, on May 29th, 1881. His temperature, which had ranged from 100° and 102° F., rose suddenly, on May 31st, reaching in a few hours 107.8°, and he was then immersed in a bath at a temperature of 68° for fifteen minutes. His temperature was then 96°, but it rose gradually in the course of the next eighteen hours to 104.4°. The bath was repeated. No hyperpyrexia or other complication followed, but convalescence was much protracted, large bullæ having formed on the soles of both feet, leaving scales, which separated very slowly. On July 18th, when he began to get up, he suffered from numbness and tingling of the feet, legs, and hands; the knee-jerk and ankle clonus, as well as the skin reflexes, were absent; and he lost his balance when his eyes were closed. After leaving the Tent Hospital he attended as an out-patient at University College Hospital. He slowly gained power in his legs, but when last seen the knee-jerk was still absent. Dr. Henderson referred to similar cases recorded by others, and considered the lesions causing the patient's symptoms were probably analogous to those found in diphtheritic palsy, and other forms of paralysis noted after acute diseases. They differed from those of true locomotor ataxy in the more favorable course which they took, ending in the majority of cases in recovery. Dr. Whipham had had two cases similar to Dr. Henderson's. Neither of them was treated with the cold bath, so the suggestion that the ataxy had had anything to do with the cold bathing might be dismissed. Both patients talked in a peculiar manner. Another point to be noticed was the irritability of temper which he thought most of these patients suffered from. Dr. Broadbent thought Dr. Henderson's notion as to the origin of the paralysis was the correct one.

#### A Penetrating Pistol Wound of the Brain.

Dr. J. Foster Bush reports the following case in the *Boston Medical and Surgical Journal*:—

A stout German, sixteen years old, was, on June 29th, while playing with a younger companion, shot in the head, and immediately fell to the ground insensible. I saw him within ten minutes after receipt of the injury. He was lying upon a sofa, breathing heavily, with a slow pulse, the mouth drawn to the left and the left arm and

leg paralyzed. It was with difficulty that he could be roused.

Upon examination a small round wound, with inverted edges, was found in the forehead, over the centre of the right eye and an inch above the eyebrow. Blood was oozing from the wound. Without the use of force, simply by its own weight, a probe passed into the wound penetrated backward to the depth of two inches. The opening in the skin was then enlarged so as to admit the tip of the little finger, and with this a circular hole could be felt in the skull. The patient was put to bed, cloths wet in ice water applied to the head, and the wound dressed with a two and a half per cent. solution of carbolic acid.

Two hours after the receipt of the injury he became perfectly unconscious, and could not be roused. Both pupils were dilated, the right fixed, the left responding to light. Five hours after the injury his condition was about the same as when last seen, the only new symptom being vomiting. Cerebral substance in masses as large as a split pea were noticed coming away with the blood. Upon examining the opening in the skull with a probe, small particles of lead were removed. Absolute quiet and rest were enjoined; liquid diet in small quantities ordered; dry cold, in the form of an ice-cap, was applied in the place of the wet compresses; and a one per cent. solution of phenyle was used in place of the carbolic dressing.

The next day the right pupil was largely dilated and did not respond to light. He stated that he could not see out of his right eye. Ten grains of bromide of potassium were given every three hours.

On July 3d there was a sero-purulent discharge from the wound, the pulse was 100, the temperature was 102.4° F., and the pain in the head was increasing.

On July 8th sight in the right eye was perfect; the headache was slight and local. For the first time since the accident he felt hungry. There was hemiplegia, with loss of both motion and sensation, and the skin of this side was colder than the other. Upon tickling the sole of the left foot the right leg would be drawn up. He also experienced spasmodic pain from left hip to the heel, and was able to move the leg for the first time since the receipt of the injury.

From this time on he gained in strength constantly, relished his food, and if he kept quiet, felt nicely. It was forty-one days from the time of the accident before he could move his arm, and up to this time he could not sit up in bed without experiencing nausea, or feeling as if "something was rolling about in his head."

It is now seven months since the receipt of injury and the patient has perfect use of both the arm and the leg of the side which was affected. He can walk without any support, and has complete control of the muscles of the arm and hand.

Although the symptoms and progress have been favorable, and there are now no alarming circumstances, I do not feel that we can give a favorable prognosis, for although wounds in the anterior and upper portion of the hemispheres are least dangerous, yet the risk of continued cerebral symptoms, epilepsy, abscess of the brain, and death from acute cerebral disease are great.

## REVIEWS AND BOOK NOTICES.

### NOTES ON CURRENT MEDICAL LITERATURE.

—Transactions of the State Medical Society of Wisconsin, for 1881. This volume contains much that is interesting; notably an address on the "Influence of Mind upon the Body," by the president, Ira Manley, M.D.

—The *Half-yearly Compendium of Medical Science*, edited by D. G. Brinton, M.D., Part XXIX, for January, 1882, has been issued. It is a complete and thorough condensation of the progress of the last six months in medical science.

—"Anæsthetics, Medico-legally Considered," is the title of an address delivered before the Medico-legal Society of New York, Dec. 7th, 1881, by J. G. Johnson, M.D., of Brooklyn, and comes to us in the form of a reprint from the Bulletin of the Society.

### BOOK NOTICES.

A *Treatise on Aural Surgery*. By H. McNaughton Jones, M.D., F.R.C.S.I. and Edin., Surgeon Cork Ophthalmic and Aural Hospital, etc. Second edition, revised and enlarged. pp.344. J. & A. Churchill, London. 1881.

The author of the book before us is so well known, not only in Great Britain and the continent, but also in the United States, that the second edition of his treatise on Aural Surgery comes with an established reputation for practical worth that commends the same to all interested in this special department. With a Sir William Wilde at the head of a list of Ireland's surgeons, the Emerald Isle has just reason to be proud of having done her full share towards the advancement of general and special surgery. Although Wilde's glorious work on the Ear is now over a quarter of a century old, it bears the full light of to-day's criticism, and Jones' work gives, in a concise and practical form, with his own, the most modern views on otology. The entire book is rearranged. The author has added several chapters, and fully maintained the essentially practical character of the work. Dr. Jones acknowledges many useful hints and suggestions from such authorities as Weber-Liel, of Berlin, and Löwenberg of Paris. A series of translations by the author, from Dr. Löwenberg's work on "Adenoid Tumors of the Naso-Pharynx," have been condensed and added, in the form of a special chapter. Dr. Morrell Mackenzie contributes additions to the portions of the



work bearing on the throat, in the chapters on rhinascopy, enlarged tonsils, and post-nasal catarrh. Dr. L. Turnbull is quoted on tinnitus aurium, the education of the deaf mute, and the influence of sea-bathing in causing deafness. Dr. Ringrose Atkins has rewritten the chapter on othæmatomata. Throughout the entire work valuable practical hints are to be gained from the author's experience, derived from the examination and treatment of upward of 5000 aural patients. Twenty chapters are in turn introduced by a carefully arranged table of contents, and closed by an appendix wherein is considered several important therapeutic hints, a list of authorities quoted, and a first-class index.

**Suppression of Urine. Clinical Descriptions and Analysis of Symptoms,** by E. P. Fowler, M.D. New York: William Wood & Co. 1881.

This is a small book (only eighty-three pages), that no progressive physician can afford to do without. Dr. Fowler commences by giving the report of one remarkable case of complete anuria (in which the suppression was absolute for ten days and two hours), occurring in his own practice, and in which a most interesting autopsy was added, to make clear a most remarkable series of symptoms. This case is followed by tables of ninety-three cases of anuria, collected from the medical literature of the last one hundred years, and these, in turn, are followed by statistics respecting anuria and associated symptoms. Diseases of the kidney are frightfully prevalent, and seem to be rapidly on the increase. Scarcely a day passes that we do not hear of some friend or some public man dying from kidney disease. Unfortunately, our knowledge of the therapeutics of renal diseases has not increased in the same proportion that our familiarity with their pathology has. Therefore, it behooves every physician to turn a good share of his attention in this direction. While this little book does not materially add anything to the therapeutics of anuria, yet by directing medical energy into that channel, it will be productive of good fruit.

**Frozen Sections of a Child.** By Thomas Dwight, M.D., Instructor in Topographical Anatomy and Histology in Harvard University, etc., with fifteen drawings from nature, by H. P. Quincy, M.D. New York: William Wood & Co., 1881.

This book possesses the merit of originality and well executed drawings. The drawings are life-size, and the sections were made from a child three years of age. The body was first frozen so hard that the operator was unable to tell whether he was sawing through muscle or bone. The

sections were then made and preserved in cold alcohol. Dr. Dwight believes that this method of preparing specimens for anatomical teaching is destined to become universal. His work has been executed admirably, but the book is not calculated to be of much service to the busy general practitioner, while to the anatomist, or to one who desires to become familiar with everything that is new, it will prove very acceptable.

**Lectures on Electricity (Dynamic and Franklinian)** in its relations to Medicine and Surgery. By A. D. Rockwell, A.M., M.D., Electro-Therapist to the New York State Women's Hospital, etc. New York: William Wood & Co. 1881.

A series of lectures originally published in a medical journal, and now brought together in book form. It is really a supplementary brochure to the larger work on electricity by Beard & Rockwell. This is the second edition, and contains some valuable improvements and additions to the first; prominently among them may be noted a description of the "galvanic accumulator" for storing electricity for surgical uses, and of the "induction balance," which was used in the case of President Garfield, to endeavor to locate the bullet, with what signal failure we are all well acquainted. To those who possess the larger treatise, this small book of one hundred and twenty pages will form a suitable companion.

**A Study of the Tumors of the Bladder.** By Alexander W. Stein, M.D., Surgeon to the Charity Hospital, etc. New York: William Wood & Co. 1881.

This is an interesting subject, about which comparatively little has been written. Dr. Stein had four interesting cases under his care, which caused him to take an interest in the subject, and, as a result, this monograph was written. It is in reality a compilation from the periodical literature of the day, well arranged and illustrated. He divides tumors of the bladder into benign and malignant growths. Among the former are included papillomata, myxomata, fibromata, and myomata. Under the latter, carcinomata, and sarcomata. He has collected and classified a very large number of cases, which tend to make this a valuable monograph.

**A Treatise on Diseases of the Eye.** By Henry D. Noyes, A.M., M.D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College, etc., etc. New York: William Wood & Co., 1881.

This is the December number of Wood's Library, already so well known as to require merely an announcement.

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D. G. BRINTON, M.D., EDITOR.

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**PREPARATION FOR MEDICAL STUDIES.**

We have heretofore referred, in a somewhat too brief manner, to the new department in the University of Pennsylvania, which has been created with the special object of preparing young men for the study of medicine.

In the comments which have appeared in the medical press on this subject, it appears to us that the one most important feature of the case has been not fully enough dwelt upon. To lengthen the period of medical studies out to the European standard is, as yet, absolutely impossible. Yet our schools attempt to cover nearly the same ground that the foreign institutions do. The inevitable conclusion is, then, that when we attempt to crowd a full four years' course into two, or at most, three winters, we, by that very fact, institute a process of cramming which is bad for the individual student, and worse still for the prospective doctor, because it introduces him to and carries him through his period of preparation in the capacity of a mere receptive machine,

allowing no, or next to no, time for proper culture of habits of observation, or his reasoning and comparing faculties. Bad as this is, it has probably been unavoidable. The new department of the University promises most effectually to obviate this. In fact, it is but a most rational extension of the idea expressed in the month of preliminary lectures which some of the leading medical colleges had already instituted. Practically it is adding another year to the medical course, by the manner in which it specifically fits the student for medicine, as it familiarizes him with technical terms, teaches him the use of implements of research, and opens the trails which broaden into well-trodden avenues to medical knowledge as he advances. While it affords opportunity to the regular student of a collegiate or scientific course to diverge from the ordinary curriculum, it also admits such special students as may have neither time, inclination nor means, to a special preparation, stipulating only that they shall have such preliminary general culture as would enable them to pass the examining board instituted by the county societies at the suggestion of the State Medical Society. Of these certainly the fuller course is the more desirable, on the general principle that one cannot have too much mental training, or too large a grasp of facts; but the second is a great advance on any plan hitherto devised for elevating the standard of the profession. The most cheering aspect of the move is that before the department is one session old it has shown such signs of vigor, and has been so well received, that its success is absolutely assured.

Taking the student through comparative to human anatomy; through physiological and analytical botany to study of the plants used as remedies; through general chemistry, so as to fairly ground him for medical chemistry; through physics far enough to enable him to apply laws of light, sound, etc., to the instruments he will use in after life; giving him also, if time allows, a good start in Latin, French and German, and also English literature; such a course cannot fail to fit an industrious lad for a high stand in his future profession, and one, too, which must tell

in his favor when he enters the crowded medical ranks, as a competitor for public patronage. It is to be remembered that this course is taken, not from text-books, but, so far as possible, by laboratory work, where all that is learned is apt to be retained: giving, beside, the largest stimulus to correct observation and correct judgment.

There are, so far as we can see, but two weak points in the whole plan: First, that elementary physiology has been omitted; and second, that no institution in the land is yet able to demand some such preparation before allowing students to matriculate in medicine proper. The first of these defects will doubtless be remedied during the year. The second is probably a question of longer time. But when law and theology both demand adequate preliminary tests for actual attainments and for mental training, it is hardly conceivable that our own profession will be content forever to bring up the rear. There is some comfort in the fact that Philadelphia has been the first to hit upon and to fairly grapple with a system of preliminary medical culture which promises such good results.

#### MILK DIET IN BRIGHT'S DISEASE.

Since we know not at present any drug that possesses therapeutic value to any marked extent in this terrible and fatal disease, and since it is daily making sad havoc among human beings, and principally among that class who, by reason of their valuable public labors, are particularly necessary to the welfare of the world; therefore, it becomes a medical question of paramount interest, that we should discover some potent method of combating this very prevalent disease. Some years since CAREL first called attention to the treatment of Bright's disease by the use of a milk diet, and since then DUNCAN, as well as many other prominent physicians, have written on this subject. We have ourselves seen some remarkable results follow this treatment, while Dr. S. WEIR MITCHELL, of our city, is now quite an enthusiast on this subject. This method of treating a formidable disease has received sufficient distinguished endorsement to recommend it seriously to our notice. We would, there-

fore, ask all physicians who read this article to try this method of treatment, and to furnish us with their experience, which we will publish. The milk is used thoroughly skimmed and entirely freed from butter. To procure the best results, it has been advised that the patient shall restrict himself absolutely to milk, and continue the treatment for a long time. If it disagrees with the stomach (as it will in some cases), Dr. MITCHELL advises that the patient be put to bed, and the treatment commenced with tablespoonful doses, to which lime water is added, until the stomach tolerates the milk, when from eight to ten pints daily should be taken, and absolutely nothing else. The sanction of such a distinguished physician as Dr. MITCHELL forces us to seriously consider the merits of this treatment, and we trust to receive the experience of all readers of this journal who may have cases of Bright's disease to treat.

### NOTES AND COMMENTS.

#### Ephidrosis.

The above name has been given to a disease of an unknown nature, but characterized by profuse sweats, returning at variable intervals, usually, every year, at the same date. That distinguishes this morbid condition from the sweats attending intermittent fever, or the colliquative sweats in phthisis, or those in miliary fever. Ephidrosis is chiefly met with among sufferers from constitutional gout, among hypochondriacs, and in certain neurotic affections unattended by gout, but in which sudation seems to be the result of nervous perturbation. Several instances have been observed which may be likened to the following case described by Dr. Olivier, in 1881, in the *Arch. de Méd. Nav.* A non-commissioned officer was admitted to the Toulon hospital, having, for a month past, been suffering from profuse sweats. He had contracted intermittent fever in 1862, and since then was subject to such attacks every year. These copious sweats continued after the patient's admission; his garments and bed clothes being thoroughly saturated by the liquid thus abundantly secreted each day, from nine in the evening till midnight. The sweat was liquid, acid, then alkaline, and its temperature that of the body. The skin was turgid, and congested,

but of normal temperature. The sweats were often preceded by a chill, and when they were over the patient slept, and only complained of fatigue. During his stay at the hospital some prurigo was noticed, also some erythematous and lichenous eruptions, attended with itching. Otherwise all the other functions were normal.

Mr. Olivier attributed this hyperhydrosis to a psychical cause. He classed it with Spring's phrenopathic variety, and believed it due to moral emotions, from which the patient often suffered. Country air, absence from care, and tonic medication, combined with hydrotherapy and antispasmodics, were found of greater benefit to the patient than all the remedies administered while under treatment at the hospital.

This case might also be considered as resulting from *larvated fever*.

#### Can a Threatened Attack of Diphtheria be Averted?

Dr. Alfred Sheen, Surgeon to the Cardiff Infirmary, writes to the editor of the London *Lancet* on this important subject. His question is based on this fact: He was called to see a young woman who had nursed her brother through a fatal case of diphtheria. Four days after his death she was seized with general malaise, shivering and thirst. Pulse, 144. Temp. 103.4°. She did not complain of her throat, which, on examination, presented a normal appearance. She was given twenty five grains of ipecacuanha powder at once, and one ℥ of the tincture of aconite every quarter of an hour, for the first hour, and every hour afterward. The next day her pulse was 94 and temp. 99.8°. On the next day her throat was painful and congested, but no patches. She was ordered:—

R. Liq. ferri perchlor.,	f℥ iv.
Potass. chlorate,	℥ ij.
Glycerine,	f℥ ij.
Aque,	f℥ vj. M.

Sig.—f℥ ss every four hours, in water.

Two days afterward pulse was 76 and temp. 98°. Congestion gone and the girl said she was quite well. Dr. Sheen then asks: "Was this woman, when I first saw her, suffering merely from a sharp attack of febricula, brought on by fatigue, anxiety about her brother, and subsequent exposure at the funeral, or was she in the early stage of diphtheria?" He adds that, "As a rule, specific febrile diseases are not averted by treatment, but may that not be because we do not get hold of the disease early enough." (?) In view of the fatal nature of this disease, and the uncertainty surrounding its pathology and therapeutics (so great that a distinguished French

lady has offered a reward of five thousand dollars to any one who may discover a preventive), this query is worthy of attention and investigation, and we will be glad to hear from our readers on the subject.

#### Phenic Acid; Its Antithermic and Apyretic Effects in Typhoid Fever.

Mr. Van Oye has lately finished an interesting thesis on the above subject, and these are his conclusions, as published by *Paris Medical*, No. 46:—

1. Phenic acid acts as a poison on the nervous system, and possesses, to a high degree, the faculty of reducing temperature, both in man and the higher animals.

2. Doses having no appreciable effect on the normal temperature are sufficient to reduce the febrile temperature.

3. This reduction takes place in all fevers, whether simple phlegmasias or infectious pyrexias.

4. Its effects appear a few moments after the medicine has been taken; their range is from 1° to 3° Centigrade, according to the dose given, and they continue from one to three hours.

5. Its action is probably due to the loss of caloric resulting from cutaneous hyperæmia, and the more or less abundant sweats coinciding with its production.

6. When the antipyretic effects of a dose are exhausted, a chill supervenes, all the febrile phenomena return, and the temperature suddenly rises to, or even beyond, its former degree.

7. A fresh dose will counteract this paroxysm, or prevent its return, if administered in time.

8. Doses that are sufficient to produce all the required antipyretic effects do not exercise any immediate noxious or toxic action on the patient.

9. Fifty centigrams (gr. viiss) administered *per rectum*, are in all cases sufficient at the outset. In general, the dose can be progressively increased until it reaches two grams *pro dosi* (℥ ss), and twelve grams *pro die* (℥ ij).

10. A dose of one gram (gr. xv) has, in some special cases, lowered the temperature down to 34.5°. This exaggerated reduction has, in no case, been attended with any evil results for the patient.

11. Pulmonary congestions are the danger to be feared and avoided.

12. Albuminuria, polyuria, and fatty degeneracies are the possible effects which may result from large and long continued doses.

13. The antipyretic properties of phenic acid



should be reserved to be used against hyperthermia in continuous fevers, or paroxysms in intermittent fevers.

#### Clitorodectomy.

Dr. George J. Engelmann contributes a very valuable and interesting paper on this subject, to the *American Practitioner* for January. He thinks the operation has fallen into undeserved disrepute, and advocates its performance in certain cases. His justification for the operation is based upon a recognition of the importance of reflex action in female suffering. He gives a complete record of one case (the only one he has ever seen), in which a lady, fifty-two years of age, was placed under his care for the following condition: She had always suffered much from headache, and was very nervous, easily flushed by worry or excitement. She has had eleven children; menstruation had always been regular, but profuse, until about six years ago, when, after eighteen months of irregularity, it ceased altogether. She complains of nervous attacks, originating sensibly in the region of the clitoris, and culminating in melancholia. All the symptoms of the attack evidence a profoundly nervous condition, and great derangement of the general health. After lasting a variable period, these symptoms would suddenly disappear, and she would have two or three weeks of comparative comfort, followed by a fresh attack, until life became a burden. Examination revealed an irritated vulva, carunculae myrtiformes, and very much enlarged nymphæ and clitoris. He removed the carunculae, and subsequently amputated the clitoris and nymphæ. The patient made a good recovery, and while under his care was entirely free from bad symptoms. Some months afterward, however, when she had returned home, the old attacks came back with full force, but Dr. Englemann attributes this relapse to a return to her old habit of masturbation, which, of course, the presence of the nurse had prevented. The question therefore arises, whether her nervous attacks were due to the enlarged clitoris or to masturbation. This opens up a wide field for investigation.

#### Forced Feeding in Phthisis.

From the London *Lancet* we note, M. Debove has lately urged the importance of the forcible feeding of phthisical patients by means of the œsophageal tube, and his favorable results have been confirmed by M. Dujardin Beaumetz. In

some cases the stomach is first washed out, and then food is introduced, easily digestible—milk, eggs, pounded meat, etc. Patients are said rapidly to regain appetite, strength, and nutrition, and to lose their pyrexia, night-sweats, and vomiting. The tolerance of the stomach for food thus introduced, even in considerable quantity, is said to be remarkable, and even the most troublesome cough no longer causes vomiting. M. Dujardin-Beaumetz has employed for this purpose an œsophageal tube, one-third of an inch in diameter, and gives by it about three and one-third ounces of raw meat, four eggs, and about two quarts of milk at a time, and four and a half to six fluidounces of cod-liver oil. He prefers to feed the patient in this manner twice in the day, and has also observed under this treatment an improvement in the pulse, a diminution in the fever and in the sweating, but he has not yet observed a decrease in the pulmonary disease.

#### Excision of the Pylorus.

At the meeting of the Royal Medical Society of Vienna, on December 16th, Dr. Wölfler exhibited a woman upon whom Professor Billroth had performed resection of cancerous pylorus two months before. The procedure in that case differed from that of others in that the duodenum was not at once divided, but its posterior wall was first fixed to the stomach by sutures. The operation lasted an hour and a half. Microscopic examination showed that glandular cancer existed, but that no cancer elements had yet appeared in the lymphatic glands extirpated at the same time. Dr. Wölfler also showed the woman upon whom he had similarly operated eight months before. No recurrence had taken place. Her digestion is quite normal.

In view of our present powerlessness to medically treat cancer of the stomach, every successful case of surgical interference seems like a beacon giving evidence of the halcyon days ahead, when we may reasonably hope to afford relief from this terrible disease.

#### Akido-galvano-cautery for Epilation.

Dr. C. Heitzmann, of New York, read a paper on this subject before the American Dermatological Association, at Newport, in August last, which has been published in the January number of the *St. Louis Courier of Medicine*.

After discussing the failure of the means hitherto recommended, he comes to the con-

sideration of electrolysis, which term he does not like, since it would convey the idea of an electric action on the tissues, without thermic influence. What we use for the destruction of hairs is the galvanic current, and, as it seems, its thermic action, therefore *galvano-cautery*. The action being induced by a delicate needle, the work *akis* could be attached, and *akido-galvano-cautery* or *akido-cautery* would be a more correct term than *electrolysis*. The battery he used consisted of sixteen cells. At first the action of the galvanic current was very slow, due to an insufficient moistening of the sponge, which the patient held in her hand. If the sponge was kept well soaked in water, six or even five cells were sufficient to render the operation successful and almost painless.

The needle attached to the negative pole was inserted into the hair pouch, without touching the hair itself, so that the negative pole was applied to the bottom of the hair pouch, the positive, by the sponge, to the hand. A whitish discoloration around the needle, detached epidermis, a little frothing, and subsequently, a marked redness around the needle, occurred. The loosened hair was then removed (without any force) by tweezers; the root was slightly discolored, and looked as if burned through. A second insertion of the needle into the gaping pouch is advisable. A small papule or pustule follows the operation, which will heal up without leaving any scar worthy of note. Failures will occasionally occur, but Dr. Heitzmann operated upon four hundred and fifty hairs and six months afterwards only six hairs had recurred, which readily yielded to a short operation.

#### Inflammation of the Hair Follicles of the Nose.

The St. Louis *Courier of Med.*, says: Dr. Hardaway called the attention of the St. Louis Medico-Chirurgical Society to the inflammation of the follicles of the small hairs in the nose. They give intense pain, and there is much inflammation externally as well as within, and very frequently, after the inflammation of the hair follicles subsides, it is followed by *exfoliation* of the outer portion of the skin of the nose; in other words, the patient has a very red nose. Externally, it is generally limited to one or the other side; there is a great deal of sharp, very acute, intense pain. The cases generally continue for weeks, very frequently last several weeks, and when it subsides, there is considerable epidermic shedding—desquamation—showing the violence of the inflammation. They are cases that

try the patience of the doctor and the patient both. Within the last year he has been using a treatment which has given great satisfaction. He uses Squibb's glycerole of the subacetate of lead and glycerine, one part of the first to seven of the latter. Under this treatment, the trouble disappears rapidly.

#### Successful Skin Grafting.

The *Paris Medical*, November 19th, 1881, reports the case of a man, thirty-seven years old, who for over six years had suffered from a varicose ulcer on the left leg. Every form of treatment had been resorted to without benefit. While in the hospital he begged of Dr. de Lamallerée to make one more effort in his behalf. The idea of skin grafting then suggested itself to the physician. The ulcer was 14 centimeters by 8. On this six grafts were applied, taken from skin off the abdomen of a young live rabbit, the hair having first been shaved off. Besides these, two other grafts of skin from the patient's forearm were also applied, and the parts were dressed antiseptically.

After eight days the dressing was removed, and it was found that the six animal grafts had fully taken; they were surrounded by healthy granulations; but the human grafts had not been successful. The dressing having been continued another eight days, inspection showed that the grafts formed a patch of healthy skin in the centre of the ulcer, 10 by 7 centimeters. After another week of antiseptic dressing, cicatrization was complete, and when the patient was again seen, two months later, he was entirely cured, and no rabbit hair had grown on the new skin.

#### Hypodermic Injection of Quinine.

J. B. Scriven, late civil surgeon of Lahore, writes to the London *Lancet* on this subject, and from his communication we note the following conclusions. There is no danger of abscess if proper precautions are used. He is always careful to introduce the nozzle of the syringe so that the aperture by which the quinine enters the cellular tissue shall be turned away from the skin. The result has been that he has never had a case of abscess, ulceration, sloughing, or evil effect of any kind, save a temporary inflammation of the arm requiring rest and cold lotions. It is well, from the moment of the injection, to give the limb absolute rest for a few days. He prefers the tartaric solution to the aqueous solution of the neutral sulphate, on account of its higher concentration. If the solution is free from vis-

bly insoluble particles, filtering is not resorted to. This is a valuable experience, inasmuch as the physician is apt to meet cases (particularly in puerperal fever patients) where, owing to uncontrollable vomiting and purging, this valuable drug can only be used hypodermically.

#### Case of Epilepsy Produced by Reflex Irritation.

The following is from the *St. Louis Courier of Medicine*: W. S., a boy aged eleven years, had been suffering from epileptic attacks for several years, which came on at different periods. The boy was rather emaciated, and of very nervous temperament. On examining the boy's penis, I found that he had phimosis, with a very small preputial opening. He told me that sometimes, when urinating, the prepuce swelled up by the urine which collected, and could not empty as fast as it came from the urethra, causing him some pain, which, however, he never told his parents. I then advised the parents to have the boy circumcised, which would materially help, if not entirely cure, this terrible disease of their son. They consented. The next day I performed the operation, having the patient under the influence of chloroform. The wound healed without trouble. From that day his nervousness grew less and less; he has had no other attacks; to-day, one year and a half after the operation, he is stout and fleshy.

#### Alcoholic Intoxication.

The *London Lancet* says that Lallemand, Perrin, and Duroy, have found notable quantities of alcohol in the blood of intoxicated animals. M. Grehan, in continuing these experiments, has endeavored to ascertain what proportion of alcohol in the blood is sufficient to produce and maintain symptoms of intoxication. Seven ounces of alcohol (21° strength) were given to a dog, in two doses, at an interval of half an hour. At the same time the animal was made to breathe through a flask containing absolute alcohol, to offset the influence of pulmonary exhalation. At the end of an hour, about two and a quarter ounces of blood were drawn from the femoral artery. It was found to contain about eight minims of absolute alcohol, which corresponds to one part of alcohol to 197 of blood. The animal was profoundly intoxicated.

#### Calabar Bean.

Every now and then an article appears in some journal about Calabar bean, and it is recommended for various diseases, notably in tetanus and epilepsy. The assistant editor of this journal wrote his graduation essay on Calabar bean, and in studying the literature of the subject,

found so many cures of epilepsy reported that he was led to believe that we had almost a specific for this terrible disease. Subsequently, during an experience in a large hospital, he was afforded the desired opportunity of using the bean in a very large number of cases of epilepsy, and found it to be utterly worthless. It had no effect whatever, unless it may have intensified the paroxysms, since it was noticed in more than one case that a seizure for which the bean was given was more violent and lasted longer than another attack in the same person when it was not used.

#### Prevention of Hay Fever.

Mr. J. B. Hannay, of Cove Castle, Loch Long, N. B., writes to *Nature* that he has succeeded in finding a means for the prevention of hay fever. One thing which misled him was, that his eyes were often very much inflamed and pained during an attack, and he often tried remedies for his eyes when they were only affected in sympathy with his nose. He found that the only thing required was to prevent the entrance of the pollen-grains into the nose. For this purpose he uses a piece of brass or steel ribbon, bent double, and having only sufficient spring to close the nostrils without undue pressure. When going among hay a further precaution should be taken, viz., plugging the lachrymal ducts. He used for this purpose dumbbell shaped pieces of glass, which were easily slipped into the ducts, and could be removed when wanted.

### SPECIAL REPORTS.

#### No. II.—ON THE EXAMINATION OF DEAD BODIES IN SUPPOSED CRIMINAL CASES.

BY GEO. F. SOUWERS, M.D.

(Concluded from page 81.)

In examining the body, the first points to be noticed are the approximate height, weight, and general physical condition of the subject; care should be exercised in this latter respect, from the fact that a defence might turn on the physical state of the individual, as in cases where it is charged that the deceased was maltreated or starved to death. Before touching the body, note should be made of the exact locality, position and attitude of the corpse; the situation it occupies relative to other articles (such as pieces of furniture) in the room; or, if found on the highway, or in the fields, the distance and direction from certain well-defined objects or near-by landmarks. Supposing these suggestions to have been observed, we will proceed to the next step, and this should be the observation of the degree of rigor mortis present; whether the limbs can

readily be flexed and extended, or whether they resist attempts at motion; it should be remembered that a limb in a state of rigor mortis can more readily be extended if it be first flexed or moved in the direction in which it normally acted during life. While ascertaining the condition we have just spoken of, the temperature of the body should be noticed, as this may throw some light on the length of time that has elapsed since the cessation of life, a question that might come up for discussion, where two persons being found dead at once, the heirs of either are to succeed to the whole of an estate upon the death of one, as where a will has been made, that if A die before B, the estate shall descend to A's heirs; but if B die before A, then to those of B, as in the case of a husband and wife having no children. Under these circumstances, if A's body were found to be entirely cold, whereas B's still retained its animal warmth (being of course exposed to the same circumstances and temperatures), the supposition naturally would be that A died first, and consequently, his heirs would be entitled to the inheritance. The next step in the examination is to ascertain the presence, number, seat, direction, depth and appearance of all wounds and scratches on the body, beginning from the hair and going down; any material found clenched in the fingers of the deceased should be retained by the examiner for future reference; this includes all such articles as hair, pieces of cloth, grasses, weeds, etc.; it may seem straining a point to suggest the retention of weeds, etc., but there are a number of instances on record where these, when submitted to the microscope, have proved that the deceased did not meet his death at the place in which the body was discovered. In case of lichens being found, it would be well for the physician, after finishing the principal examination, to seek to discover similar bodies in the locality in which the body is found, these to be used for purposes of comparison. In the observation of wounds, it is of primary importance that it be noticed whether the edges gape open and are everted, or whether the lips are more or less closely approximated; a wound that gapes must have been made before or very shortly after death, where the skin seems simply to have permitted the passage of a knife, or sharp instrument, without retracting from before it, it is good evidence that the wound was inflicted after and not before death, although, as Taylor remarks, a lateral motion given to the hand or the instrument in making a cut or stab, may be the cause of a certain amount of gaping. That wounds made

before and after death should resemble each other more or less closely in respect to the degree of gaping present, it is necessary that they should have been made while the *animal heat* still remained in the body. Taylor, in some experiments on this point, made on amputated limbs, arrived at these conclusions in regard to the time at which retraction and the other symptoms of section during life ceased to appear. We place them in a tabulated form:—

Incision made two minutes after amputation, through skin etc., down to the deep seated fascia of the leg (calf).	Skin retracted so as to permit extrusion of adipose substance, on account of which protrusion there was but little blood effused, owing to mechanical pressure. The wound after 24 hours presented red, bloody and everted edges; skin not swollen, but slightly flaccid; coagula slight and at bottom of wound being readily broken up by the finger.
Ten minutes after amputation, similar incision on outer side of leg, down through the peronei and flexor longus pollicis.	Elasticity of skin lost; edges but very slightly everted; but little blood lost. In 24 hours afterwards the edges of the incision were pale and collapsed, presenting none of the characters of a wound inflicted during life; while there were a few coagula at the bottom of the wound, yet they were decidedly less in number than in the preceding instance.
Two to three hours after.	A little blood effused, but no coagula formed.
Twelve or fourteen hours after death.	No resemblance between wounds made during life and after the lapse of this period.
A wound with swollen and everted edges.	A wound inflicted before death.
A wound inflicted before death presents:	A wound inflicted after death presents:
1. Eversion of the edges, owing to the elasticity of the skin.	1. Edges not everted, but close.
2. A abundant hemorrhage, often of arterial character, with a general infiltration of the surrounding connective tissue.	2. Hemorrhage or bleeding exclusively venous; absence of copious hemorrhage, there being about the divided arteries no marks of blood, as



## 3. The presence of coagula.

(If there has been no bleeding of any account then these two latter signs may be wanting.)

## 4. The edges of lips of the wound are more or less resistant to pressure lightly applied.

there is where hemorrhage takes place during life.

## 3. No coagula and no infiltration of blood into the connective tissue.

## 4. Edges of the wound soft, yielding, and destitute of elasticity.

The above appearances should all be carefully noticed and note made at once of the appearance, location, measurements, condition, and direction of the wound or wounds; the exact time at which these observations are made should be noted, and if possible, comparison should be made with the time piece carried by the deceased; the need of this precaution may not seem clear to many, but we will explain. It is not an uncommon event to find a watch carried by a person who has met a violent death, especially where there has been a severe struggle, in which it has been subject to more or less rough usage, to be stopped; we have found that in ten minutes a dead body ceases to respond to certain tests to which a living body would, one of these being the retraction of the skin; now, if a person, being suspected of a criminal attack upon the deceased, attempted to prove an alibi, it would only be necessary, in the first place, for him to show where he was during the interim between the stoppage of deceased's watch and that of the physician; or, secondly, if, for purposes of experiment, a doctor, upon his arrival, made an incision upon the body, which incision gaped, consequently showing that only about ten minutes had elapsed since death, it would only be necessary for the prisoner to show his whereabouts during that or a shortly preceding time, instead of during seven, eight, or twenty four hours previous to the finding of the body, as is now frequently required.

A question here occurs which is of interest, namely, is it allowable to remove, or in any way interfere with the body of a person found dead? The common opinion seems to be that a corpse must not in any way be interfered with until the arrival of a coroner or his deputy; this idea, however, will admit of a modification to this extent: if a body be found hanging, it is allowable to cut it down; if drowned, to remove it from the water; or, if exposed, it may be taken to a place of shelter, providing always that the corpse

be not taken from the neighborhood or locality in which it is found, to a distance. It would not be permissible to remove it from one section of the city or county to another, till the qualified officers of the law had issued a permit; nor would a doctor's certificate of death be issuable in such a case, unless first sanctioned by the coroner or his legal and proper representative, which sanction the physician should *demand in writing*, so that in case any question arose as to the authority by which he acted, he would be able to exhibit it; it may seem needless to take this precaution, but we have known of instances in which a neglect of it has caused very unhappy results for the practitioner. Where bodies are found under peculiar circumstances or conditions, care must be exercised lest too hasty conclusions are jumped at as to the cause of death; thus, a corpse being found near or on the banks of a stream, presenting the appearances of a drowned body, would seem, at first view, to be *prima facie* evidence as to the cause and manner of death, but it is just here that a mistake may occur; for instance: We are aware of two instances in which dead bodies being found on the margins of streams, it was supposed that the deceased met their deaths through drowning. Investigation disclosed the fact that the necks of both were broken. A question then came up, how did the accident happen? In both instances witnesses who were present at the time naturally concluded that the individuals had been drowned. On making examination of the places at which the deceased parties dove into the stream it was found that the water was shallow at these situations, and that a mistake had been made by the persons who had met their deaths, in judging of its depth, and that in consequence they sprang into the water head first, with such great force as to bring their heads in violent contact with the bottom; thus accounting for the production of the unfortunate sequelæ. We can readily see how, if these men had died, there being no witnesses present, and their bodies had been found in a deeper portion of the stream than that which they entered, with their necks broken, it might be debated whether they had come to their ends by fair or foul means, and a coroner's physician might well be asked if an accident such as we have spoken of could take place, on the trial of a person who might be suspected of being party to the death of an individual.

A physician being called to see a body found dead, or a person who shortly afterwards dies, should at once notify the coroner of the place in which death has taken place, and if there is no

such officer conveniently attainable, then those whose functions under the law come nearest to the powers usually lodged in that officer, namely, a Justice of the Peace, an Alderman, Burgher, or the chief officer of police in the district in which the event has happened. All effects of the deceased, any weapons or instruments of any kind found in the neighborhood of the corpse; all loose articles of clothing; or in cases of poisoning, all packages, bottles, samples of food, excretions, etc., should be retained by the physician until delivered by him to the proper officers of the law, to wit: the Coroner, Justice of the Peace, etc., above spoken of, in order that they may be used as evidence, if necessary, by the court, and that others may not remove them without authority. Of course, where a man dies suddenly, as from a heart disease, an apoplexy, etc., these precautions do not apply. We speak only of where there is good reason for the exercise by the physician of a reasonable degree of judgment, such as any sane and intelligent man is bound to observe, and which he, under the circumstances, as a physician, is supposed to be particularly qualified to employ. Where a post-mortem examination is made, not only the injured parts should be examined, but likewise all the organs of the body, so that it may be known whether there existed any diseased condition of the subject which, either of itself, or taken in conjunction with the injuries, would be likely to produce death. In other words, given a series of injuries to a man in whom certain organs are more or less diseased, would such a circumstance in any way tend to increase the chances of a person's death. This is an important point to be attended to, for the defence might argue that a man died of a diseased condition of some organ or structure, and not of the wound. The attempt being to prove, if not absolute innocence of the affair, then simply an assault and battery. This would make a strong defence, if a medical examiner had neglected to carefully inspect all the organs of the body, and his inability to testify, pro or con, in the matter would probably result, where his was the leading testimony, in exonerating the prisoner from the charge of murder.

## CORRESPONDENCE.

### Smallpox Hospitals.

ED. MED. AND SURG. REPORTER:—

Inasmuch as students and practitioners, as a rule, do not have access to smallpox hospitals, a study of cases in the wards may prove of service

to them when called to decide on the diagnosis of *variola*. The classical divisions of the disease are discrete, confluent and hemorrhagic. All authors treat fairly of the first two forms, but the hemorrhagic is imperfectly described, if at all referred to. It should be divided into two classes. First, that in which, from a purpuric state of the blood hemorrhage takes place into the fully formed vesicle; and second, that in which there is a hyperæmic state of the papule from the outset. This latter class is nearly always confluent, and usually fatal. It is difficult to describe these papules more definitely than to say that they are broad, but slightly elevated, and nearly identical in appearance with the eruption of malignant measles. These papules do not fill as the ordinary ones do, but remain low and diffuse. The skin between the papules has a diffuse redness. The symptoms of this group of hemorrhagic cases are also peculiar; many begin with little or no fever, and up to the time of the appearance of the eruption, there is nothing to indicate the grave condition of the patient.

To illustrate the importance of a diagnosis and the difficulty of making it, the following case may be of interest:—

A gentleman connected with one of the daily journals called on his physician, stating that he was unwell, but not in a degree to cause any apprehension. He was requested to remain in the house for a few days. After a day or two, a rash appeared, and was considered to be measles. The rash, instead of becoming less pronounced, in a few days increased, and then the diagnosis of smallpox was made. The patient when removed to the hospital was able to walk to the carriage. He died on the fifth day of hospital residence.

As has been previously suggested, this class of cases is liable to play great havoc with the reputation of the physician by mistake in diagnosis and prognosis.

Delirium in any case of smallpox after the eruption has appeared, coming on at night, is not a serious symptom; but if it lasts twenty-four or forty-eight hours, the chances of recovery are small. Convulsions are rare, but they do occur.

The eruption in smallpox usually appears on the third or fourth day, and the umbilication of the vesicles, though quite common, is by no means pathognomonic. It often happens that the eruption appears on the conjunctiva, and when it does so, it is on the palpebral surface. It is to be distinguished from keratitis, which is of frequent occurrence. The fever of suppuration takes place about the ninth or tenth day, and in fatal cases, where the patient does not die within the first few days, death occurs about the twelfth of the eruption, from asthenia.

*Prognosis.*—The mortality, including children and adults, is about twenty per cent. With children alone the rate is higher. In closely analyzing the varieties, we find that adults with the discrete eruption usually recover, even if, from a purpuric state of the system, blood has been effused into the vesicles. It will be remembered that these cases were classed as one of the classes of the hemorrhagic. When the disease is confluent, or seems confluent, there is an increase of the danger; and in the malignant form

referred to as the secondary division of the hemorrhagic, the prognosis is uniformly bad. The treatment of the disease is mainly expectant and supporting. The eruption on the face is treated by the application of a solution of nitrate of silver  $\text{Rj}$  to  $\text{ʒj}$ .  
J. J. REID, M.D.  
New York City.

#### Pregnancy Complicated by a Fibroid Tumor of the Uterus.

ED. MED. AND SURG. REPORTER:—

I herewith send you the report of an autopsy made upon a patient with the following history:—

On the 31st of December, 1881, I was called to see Maggie K., aged thirty-six years; single. I found her in a semi-unconscious condition, very restless, as though suffering considerable pain; her pulse weak and 120 per minute; action of the heart regular, but somewhat labored; mouth firmly closed, and was unable to swallow or speak; there were no convulsions. From what meagre history I could gather from those around her, found she had been in this condition for twenty-four hours before I saw her, that she had been treated for a tumor of the uterus; that she had been in ill health for several months; had not menstruated for two or three months, and that she had considerable vomiting, especially in the morning.

I made a vaginal examination, and taking into consideration the history of her case, came to the conclusion that she was pregnant, and that these symptoms might have been produced by some medicine taken for the purpose of producing abortion. I endeavored to get her to swallow some medicine, but she seemed too unconscious for that, and I did not succeed.

Being at the house of a stranger, I ordered her removal to the Mercy Hospital, this city, which was done, where she died the following afternoon, twenty-four hours after my first visit. The cause of her death being rather obscure, the coroner of this city was notified, who ordered Drs. James McCann, Joseph N. Dickson, and myself to make a post mortem examination of the body, which we did the next day, about twenty-four hours after death, when we found the following state of affairs: Post-mortem rigidity well marked; body well nourished; no marks of external violence. On opening the abdominal cavity several tumors of the uterus were discovered; one on the right iliac fossa, firmly adherent and dipping into the pelvis, very resisting and somewhat nodulated; another, of smaller size, a fluctuating tumor, which was firmly attached to the first and slightly overlying it to the left, being firmly adherent to the sigmoid flexure of the colon, the bladder, and pelvic fascia.

On dividing some of these adhesions they proved to be the round and broad ligaments of the uterus. After dissecting out this tumor and passing a probe into it through the canal of the uterus, and laying it open, it was found to be the uterus, containing a fetus of about nine weeks.

The right tumor, upon incision, was found to be a solid fibroid, and in size about six by four inches in diameter. The right ovary was atrophied, but the left seemed in a fair condition of health.

The stomach contained about eight ounces of a dark, grumous, coffee-colored liquid. The mucous membrane at the cardiac end was thrown into rugae, and separated readily from the submucous tissue. The pyloric end gave evidence of rather intense inflammation. The heart was normal in size and external appearance; on opening the left cavities, found the muscular structure, valves and internal lining membranes normal, but attached to the border of the mitral valve was a firmly organized, fibrinous clot, about four inches long and extending from the ventricle into the aorta. The semilunar valves of the aorta were perfect in structure. On section of the right side of the heart, the muscular structure, valves and internal lining membrane were here also found normal. But here another clot was found, not as firmly organized in the vena cava as in the right auricle and ventricle. This same clot nearly filled the auricle, extending through the auriculo-ventricular opening, attached to the tricuspid valve and forming a clot in the right ventricle, which extended into the pulmonary artery to its bifurcation, and was, in size, nearly the capacity of the artery. The spleen was small and of normal structure. Kidneys large and in a condition of fatty degeneration, the structure being very much softened. The bladder contained about eight ounces of urine. Liver normal in structure and size, but very highly congested.

The case is certainly an interesting one, as it shows that a fibroid tumor of the uterus will not prevent pregnancy. As to the cause of her death; she had badly diseased kidneys. Were the symptoms of the last two days of her life produced by uræmic poisoning and subsequent heart clot? or was death produced by some irritating emmenagogue taken in an over dose? The stomach indicated a high stage of irritation, but analysis of its contents gave negative results. Oil of savine might have been taken, as it cannot be detected by any odor and is said to produce paralysis of the heart and heart clot, so well marked in this case. The verdict of the coroner's jury was that: "The said Maggie K. died from blood clots." About as intelligent a verdict would have been that she died for want of breath.

Pittsburgh, Pa. D. A. HENGST, M.D.

#### Extirpation of Thyroid Gland by Enucleation.

ED. MED. AND SURG. REPORTER:—

In the *Record* of December 31st, last, there is a brief account of the excision of the thyroid gland, by Mr. Whitehead, of the Royal Manchester Infirmary, with the observation, "That it may be classed among the notable operations of surgery." A similar operation having been performed at the St. Mary's Hospital, in this city, with good results, I send you notes of same.

Gertrude Baker, aged three years, having a tumor involving the thyroid gland; first noticed about a year since, and for the last few months developing very rapidly, and becoming so large as to interfere with respiration.

Operation Dec. 6th, 1881, by Dr. Wm. A. Byrd, assisted by Doctors J. C. Hearne, of Hannibal, Mo., M. Rooney, House Physician, J. B. Shawgo, and G. W. Connell, of Quincy. Loss of blood

was moderate, and recovery rapid; the closing of the large denuded surface being hastened by skin-grafting. Weight of tumor eight ounces. Discharged December 22d.

A parotid gland was removed from Andrew Villslagh, by the same operation, followed by rapid recovery, and very slight facial deformity, May 10th, 1881.

Dr. Byrd proposes to give a full account of these operations as soon as practicable, illustrated from photographs.

Quincy, Ill.

G. W. CONNELL, M.D.

## NEWS AND MISCELLANY.

Dr. Joseph F. Edwards

Has accepted the position of assistant editor of the MEDICAL AND SURGICAL REPORTER. Dr. Edwards is already known to the profession through the *American Specialist*, of which he was editor last year, and also by his various works on "How a Person Afflicted with Bright's Disease Ought to Live," "Constipation," "Dyspepsia," "Malaria," etc. We can promise our readers that they will have a constantly improving journal, through his energy and knowledge.

### Vital Statistics.

From the City Registrar's office of Providence, R.I., we note the following interesting statistics: Total death rate for 1881, 20.45 per 1000. Among whites, 20.13 per 1000; colored, 29.34 per 1000. American parentage, 20.67 per 1000. Foreign parentage, 20.26 per 1000. Thirty per cent. of all the deaths were fifty years of age or over. Greatest number of deaths occurred in August. The following point is very noteworthy: "There were 2307 persons vaccinated at the office of the Superintendent of Health (964 more than in 1880) and 1984 certificates of vaccination given to school children. The population is 104,000. Now, there has been no death from smallpox in Providence since July, 1875, and only one death since 1873." There were 16 deaths over 90, and one over 100 years of age.

### Guiteau's Opinion of Experts.

That Guiteau possesses a very level head on some points, at least, is shown by the following remarks made by him to the court: "That's a first-class decision, Judge; that's all I want to get before the jury—what I said at that time relative to the causes that impelled me upon the President. As for the rest I don't care a snap. I would not give fifty cents a bushel for this expert testimony. If I had money enough I could get fifty of the best experts in the country to swear that I am as crazy as a loon. That's just how much that kind of evidence is worth."

### Death Under Chloroform and Ether.

—The *London Lancet*, of December 31st, 1881, says: Last week a patient died at the Great Northern Hospital, while under the influence of a mixture of chloroform and ether, administered pre-

paratory to the removal of the nail of the great toe. The anæsthetic was given on lint, and the operation was completed, when it was discovered that the pulse had ceased, and the patient succumbed in spite of every effort adopted to restore animation.

### Items.

—The chair of Natural History, at Edinburgh, has been offered to Dr. Francis M. Balfour, F.R.S., author of the treatise on Comparative Embryology.

—Mr. L. O. Howell, Jr., has submitted to the Board of Health of this city a code of laws for the regulation of plumbing and drainage. The matter has been referred to the Sanitary Committee.

—The Executive Committee of the National Board of Health, in session on January 20th, officially declared smallpox to be epidemic in the United States, and appropriated two thousand dollars to prevent its spread in the District of Columbia.

—Domestic physiology: "Eight parts in ten of the blood consists of pure water; do you remark that, Mrs. Tooflorida?" "I do, sir, and if it's your own blood you are talking about, Mr. Tooflorida, take my word for it the other two parts consist of whisky."—*New York Commercial Advertiser*.

### MARRIAGES.

LOGAN—OLMSTEAD.—On the evening of Dec. 29th, 1881, in the First Presbyterian Church of Scranton, Pa., by Rev. S. O. Logan, D.D., Harry V. Logan, M.D., eldest son of the officiating clergyman, and Miss Mary M. Olmstead, only daughter of Mr. Richard W. Olmstead, all of Scranton, Pa.

LYNTON—SMITH.—Dec. 15th, 1881, by Rev. S. S. Wylie, at the residence of D. R. Smith, Harry M. Lynton, M.D., of New York City, and Miss Sallie E., eldest daughter of D. R. Smith, of near Middle Spring, Pa.

MILLER—FOREPAUGH.—On Wednesday, January 11th, by Rev. George Dana Boardman, D.D., Dr. S. T. Miller, of Paulsboro, N. J., and Jennie Forepaugh, of Philadelphia. No cards.

PRATT—CATHCART.—On Thursday, December 29th, 1881, at the residence of the bride's father, in Concord, Mich., by Rev. C. P. Quick, Dr. E. B. Pratt, of Brownville, N. Y., and Miss Sara E. Cathcart, of Bay City, Mich.

RUGG—HAGER.—In Proctorsville, Vt., Dec. 28th, by Rev. William H. Rugg, of Perkinsville, David F. Rugg, M.D., of Hartland, and Julia A. Hager of Proctorsville.

WEBB—VANDERBILT.—In New York, on Tuesday, December 26th, 1881, at St. Bartholomew's Church, by the Right Rev. the Bishop of New York, the Rev. Dr. Cooke, and the Rev. Dr. Howland, Dr. William Seward Webb and Lila Osgood, daughter of William H. Vanderbilt.

### DEATHS.

BARRY.—In Brooklyn, at the residence of his father-in-law, on Friday, Jan. 6th, Dr. Robert A. Barry, of New York, in the 58th year of his age.

BESLEY.—At Dennisville, N. J., December 13th, 1881, Maurice Besley, M.D., in his 77th year.

MOORE.—On the 11th inst., at Chicago, Ill., Dr. Jos. C. Moore, in the 37th year of his age.

NEEDHAM.—Dr. W. O. H. Needham, State Senator of Ohio, of the Gallipolis district, died recently, of typhoid pneumonia.